Queen Charlotte Sound Groundfish Bottom Trawl Survey, July 3rd to August 3rd, 2007

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by

N. Olsen, K.L. Rutherford, G.D. Workman, and R.D. Stanley

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Table of Contents

Abstract v
Résumé vi
Introduction 1
Methods 2
Vessel and Fishing Gear 2
Staff Summary 2
Survey Design 2
Operations 2
Fishing 2
Gear and Oceanographic Sensors 3
Catch Processing 4
Biological Sampling 4
Results 4
Fishing 4
Catch 5
Samples and Specimens 5
Gear and Oceanographic Sensors 5
References 6
Appendix A: Bridge Log 27
Appendix B: Catch by Tow 33

List of Tables

Table 1. Net specifications 7
Table 2. Survey personnel for each leg of the survey. 8
Table 3. Definition of survey strata with the target tow allocation and the total area in each. 9
Table 4. Mean warp length and scope by depth interval. 9
Table 5. Summary of survey operations. 10
Table 6. Catch broken down by species groups. 10
Table 7. All captured species showing number of tows in which the species occurred, total catch weight, maximum and mean per-tow catch weight, and relative abundance and relative error from bootstrapped area expanded estimates. 11

Table 8. Offloaded catch weight by species. 15

Table 9. Number of samples and number of recorded biological attributes per species sampled. 16

Table 10. Numbers of samples and specimens by sample type and species..... 17

Table 11. Statistics of individual length and weight, and sex proportion by species. 18

Table 12. Data collected from net sensors, showing the number of tows from which each data type was collected (total number of survey tows is 253). 19

List of Figures

Figure 1. Location of Queen Charlotte Sound on the coast of British Columbia, Canada. 20

Figure 2. The commercial stern trawler F/V Viking Storm..... 20

Figure 3. The Queen Charlotte Sound study area showing area boundary, fishing closures, sponge reef protected areas, and depth contours. 21

Figure 4. Initial status of the sampling frame showing the 310 primary fishing locations. 21

Figure 5. Example tow tracks from 2007..... 22

Figure 6. Warp length vs. starting depth..... 22

Figure 7. The paths followed on each leg of the survey. 23

Figure 8. Final status of the sampling frame showing locations that were fished successfully (completed), rejected prior to fishing (rejected), or abandoned after one or more unsuccessful fishing attempts (failed). 23

Figure 9. Histogram of number of species caught per tow. 24

Figure 10. Histogram of catch weight per tow. 24

Figure 11. Seabird 39 temperature and depth profile from tow number 1. The vertical lines indicate the start and end of net contact with the sea floor. 25

Figure 12. NMFS bottom contact sensor profile from tow number 25. The vertical lines indicate the start and end of net contact with the sea floor. 25

Figure 13. Example plot of net sensor data. The solid dark area at the bottom represents the sea floor. The light grey line directly above that represents the net footrope (note the region indicated by the arrow, showing where the net has risen off the sea floor for a brief period). The top line indicates the net headrope. The symbols between the headrope and the footrope indicate where fish have entered the net. 26

ABSTRACT

Olsen, N., Rutherford, K.L., Workman, G.D., and Stanley, R.D. 2007. Queen Charlotte Sound groundfish bottom trawl survey, July 3rd to August 3rd, 2007. Can. Manuscr. Rep. Fish. Aquat. Sci. 2820: vi + 60 p.

A bottom trawl survey of Queen Charlotte Sound and southern Hecate Strait was conducted on the fishing vessel F/V Viking Storm between July 3rd and August 3rd, 2007. The survey was jointly conducted and funded by the Canadian Groundfish Research and Conservation Society (CGRCS) and Fisheries and Oceans Canada (DFO), and was the fourth in the series of "modern" Queen Charlotte Sound groundfish surveys that began in 2003. The first three surveys were conducted annually between 2003 and 2005, after which the survey schedule was changed to every second year, starting in 2007. The Queen Charlotte Sound survey is just one of a long-term and coordinated set of surveys that cover the continental and upper slope of the continental shelf of most of the British Columbia coast. The objective of these surveys is to provide fishery independent abundance indices of all demersal fish species available to bottom trawling, as well as to collect biological samples of selected species.

The survey conducted 257 successful tows from a total of 277. The mean catch per usable tow was 269 kg, averaging about 18 different species of fish and invertebrates each. The most abundant fish species encountered was Pacific ocean perch followed by arrowtooth flounder, silvergray rockfish, and redstripe rockfish. Biological data, including individual length, weight, sex, maturity, and age were collected from 62 different species of fish. Oceanographic data and net geometry were also recorded for most tows, including water temperature, depth, headrope height, doorspread, and current velocity through the net.

RÉSUMÉ

Olsen, N., Rutherford, K.L., Workman, G.D., and Stanley, R.D. 2007. Queen Charlotte Sound groundfish bottom trawl survey, July 3rd to August 3rd, 2007. Can. Manuscr. Rep. Fish. Aquat. Sci. 2820: vi + 60 p.

La Canadian Groundfish Research and Conservation Society (CGRCS) et Pêches et Océans Canada (MPO) ont financé et procédé conjointement à la réalisation d'un relevé au chalut de fond dans le bassin Reine-Charlotte et le sud du détroit d'Hécate du 3 juillet au 3 août 2007. Mené par le navire de pêche F/V *Viking Storm*, ce relevé est le premier d'une série prévue de relevés coordonnés à long terme du plateau continental et de la partie supérieure du talus de la majeure partie de la côte de la Colombie-Britannique. L'objectif de ces relevés est l'établissement d'indices d'abondance, indépendants de la pêche, de toutes les espèces de poissons démersaux capturables au chalut de fond et la collecte de données biologiques sur certaines espèces.

Des 277 traits de chalut, 257 ont été fructueux. Les prises moyennes par trait se chiffraient à 269 kg. Quelque 18 espèces différentes de poissons et d'invertébrés ont été prises en moyenne à chaque trait. Le sébaste à longue mâchoire était l'espèce la plus abondante; venaient ensuite la plie à grande bouche, le sébaste argenté et le sébaste à raie rouge. Des données biologiques (longueur, poids, sexe, stade de maturité et âge) ont été recueillies pour 62 espèces de poisson. Des données océanographiques (température de l'eau et profondeur) et des données sur la géométrie du chalut (hauteur de la ralingue supérieure, écartement des panneaux et vitesse du courant à travers le chalut) ont également été collectées pour la plupart des traits.

INTRODUCTION

In 2003 a report by the Pacific Scientific Advice Review Committee (PSARC) recommended development of fishery independent relative abundance indices using bottom trawl surveys in British Columbia waters (Sinclair et al., 2003). As an initial step, it recommended that a pilot survey be conducted in PMFC major areas 5A and 5B (Queen Charlotte Sound, Figure 1). This region was recommended in part because it is not covered by other bottom trawl surveys and it represents a significant portion of the commercial bottom trawl fishery.

In February 2003, the Canadian Groundfish Research and Conservation Society (CGRCS) committed to funding the principal portion of the required vessel and net costs, and a significant portion of the scientific staff needed to conduct the survey and analyze the results. The Science Branch of Fisheries and Oceans, Canada (DFO) committed to funding additional scientific and sampling staff, and to provide the scientific sampling equipment.

The first three groundfish bottom trawl surveys of Queen Charlotte Sound were conducted annually from 2003 to 2005 in July and August (Olsen et al., 2007a, 2007b, and 2007c). After 2005, the survey was re-scheduled to occur every second year, beginning in 2007. This document provides a brief synopsis of the fourth survey, which took place from July 3rd to August 3rd, 2007, and includes the methods used and data collected. It is not intended as a comprehensive review of the survey, nor does it provide interpretive analysis of the survey results. These topics will be covered in more detailed companion documents.

METHODS

VESSEL AND FISHING GEAR

The survey was conducted aboard the commercial stern trawler F/V Viking Storm (Figure 2). The trawl net used was an Atlantic Western IIA box trawl (

Table 1) connected to 815 kg Thyboron 104 doors with 11 m door legs.

STAFF SUMMARY

A total of 16 personnel were involved in the survey, which was split into 4 sections or "legs", between 9 and 11 days in duration with 10 staff in each. The Canadian Groundfish Conservation and Research Society (CGCRS) funded employees of Leader Fishing Ltd. and Archipelago Marine Research Ltd. (AMR). All other staff were funded by Fisheries and Oceans Canada (DFO) (Table 2).

SURVEY DESIGN

The study area consists of all of Queen Charlotte Sound and the southern part of Hecate Strait, excluding near-shore waters and inlets, areas closed to fishing, and protected sponge reef areas (Figure 3). The southern portion of Hecate Strait was included in order to provide coverage contiguous with the Hecate Strait groundfish bottom trawl survey. We split the study area into two spatial strata, creating northern and southern regions that split along Mitchell and Reed Troughs. In addition to these areal strata we divided the study area into four depth strata, creating a total of eight strata (Table 3).

We divided the survey area into a contiguous grid of 4 km^2 blocks and from these blocks we randomly selected 310 primary fishing locations (Figure 4) based on a target allocation of 240. We arrived at the figure of 310 by calculating our per-stratum failure rates from 2003 to 2005 and applying these factors to our 2007 allocation scheme to compensate for the predicted rate of failure.

OPERATIONS

Fishing

Fishing commenced at 30 minutes after sunrise and ended at 30 minutes before sunset each day, where start and end fishing is defined as the trawl net on, and off bottom, respectively. This yielded an average working day length of 15 hours, starting at approximately six o'clock in the morning and ending at about nine o'clock in the evening.

On each day prior to fishing, the captain and chief scientist reviewed the list of fishing locations to determine a candidate set of locations to visit throughout the day. During this review process the captain would sometimes determine, based on his experience and knowledge of an area, that one or more locations were not fishable. In such cases we would mark the locations as "rejected based on prior knowledge". After

compiling a list of candidate locations to be visited, the captain would then plan the most efficient route of travel between locations.

We frequently began fishing immediately on arrival at a fishing location. However, if the captain was not familiar with an area we would "sound" the region (traverse the location and examine the depth sounder trace) to determine if it was suitable for trawling. If it was not, we marked the location and "rejected based on inspection".

When trawling, the captain would attempt to tow through the center of the 4 km^2 fishing block, usually following a depth contour. However, where the bottom topography made this difficult or impossible, the captain would trawl wherever he felt he could obtain a successful result, with the stipulation that at least half of the total trawl track had to be within the 4 km^2 block (Figure 5). The scope used in 2007 is shown in Table 4 and Figure 6.

To determine the start of each 20 minute tow, we monitored the real-time net sensor data to establish when the net reached the sea floor and the headrope collapsed to a height of about three to four meters, at which point we considered the net to be actively fishing. Nineteen minutes after the start of the tow, we retrieved the net. Retrieval was done one minute early because slack in the warps creates a lag of about one minute before the net leaves the bottom. Although our target on-bottom time was 20 minutes, we accepted tows that were at least 15 minutes in length. This was a pragmatic decision that allowed us to retain many tows that would otherwise have been failures due to hang-ups or early haul-backs.

The result of trawling was either a successful tow, or a hang-up or tear-up of the trawl net. In the event of a hang-up or tear-up, we would either mark the location as "rejected after one or more attempts to fish" or make additional attempts to fish. Thus, we kept records of the three scenarios that resulted in a location being removed from the sampling frame:

- Rejection based on prior knowledge
- Rejection based on on-ground inspection
- Rejection based on one or more failed fishing attempts

Rejected locations were removed from the sampling frame for the current and all future surveys. Thus, every year of the survey results in the removal of some unfishable area, which over time, will lead to increasing efficiency (i.e. we will spend less time surveying areas that cannot be fished).

Gear and Oceanographic Sensors

The trawl net was equipped with a variety of real-time sensors including temperature, depth, doorspread, current velocity, and headrope height. These sensors transmitted data to a bridge computer once per second and allowed us to continually monitor the net during fishing. In addition to these real-time sensors, we also attached data-logging probes to collect water temperature and pressure/depth (Seabird 39) and contact of the trawl net with the sea floor (NMFS Bottom Contact Sensor). Data from

these logging probes were downloaded twice per day, once at midday and once at the end of the day.

Catch Processing

Codend contents were dumped into a raised rectangular sorting bin approximately three meters long by two meters wide. Any catch that did not fit into the sorting bin was dumped into a spillway forward and aft of the bin. We completely sorted and weighed the catch to species, except in rare instances when the catch was too large to be sorted in a reasonable amount of time. In these cases we obtained the captain's estimate of total weight, then sorted and weighed all but the dominant species, which was then obtained by subtraction.

Biological Sampling

While the primary purpose of this survey was to generate fishery independent indices of relative abundance, our second goal was to collect associated biological information on the size, sex, and age composition of selected species. In particular, our biological sampling priorities were to collect length and sex frequencies on all species in the catch of each tow (subject to a minimum number of specimens criteria), to collect representative samples of specimen length and weight, and to collect age samples for select species.

We selected age samples from the dominant (by weight) catch in each tow, as well as certain species deemed high priority due to concerns over stock status (for example, Bocaccio, lingcod, and Pacific cod). Otoliths (calcareous accretions of the inner ear) were collected from rockfish and flatfish species while fin clips were taken from lingcod and Pacific cod. Both of these structures grow in a series of annular rings that can be counted to determine age.

RESULTS

FISHING

We divided the survey into four sections of five to eleven days. This duration was short enough that we were able to retain a significant amount of the catch, which was sold at the end of each leg, and also allowed us to rotate the science crews to minimize fatigue. The overall pattern of each leg covered a longitudinal segment of Queen Charlotte Sound, starting in the east and moving progressively west with each leg (Figure 7). We imposed this pattern in order to minimize yearly bias resulting from changes in area/times fished (for example, fishing the western side of the sound first in one year vs. the eastern side the next). Our choice of an east to west direction was to avoid unintentionally tracking a fish stock, as some species are known to migrate from deeper to shallower water from July to August.

From a total of 32 survey days, three days were required for travel at the start and end of the survey, four days were required for offloading catch and changing crews, and a day and a half was lost due to equipment failure and repairs. Thus, we ended with a total of 23.5 full fishing days (Table 5), in which time we conducted 277 tows, of which 257 were successful and 20 were unsuccessful due to hang-ups or tear-ups, for an average of

just about eleven successful tows per fishing day, or about eight successful tows per survey day overall.

The final status of the 2007 sampling frame includes 257 successfully fished locations, 2 locations rejected prior to fishing, based on the captain's knowledge, 35 locations rejected based on on-ground inspection, and 15 locations rejected after one or more failed fishing attempts (Figure 8). There was also a single block on Scott Bank that was not fished on the final fishing day of the survey due to extreme tidal currents.

CATCH

Catch weight per tow was typically less than 1000 kg and on average, we observed about 10 to 25 species per tow (Figure 9 and Figure 10). We caught a total of 72,215 kg of fish and invertebrates. Most of this (71,114 kg) consisted of 107 different taxonomic groups of fish, including 33 rockfish taxa and 13 flatfish taxa. The remainder (1,102 kg) consisted of 109 invertebrate groups (Table 6). Of the fish species, Pacific ocean perch was the most dominant by weight, followed by arrowtooth flounder, silvergray rockfish, and redstripe rockfish (Table 7). Significant amounts of the commercially viable fish catch, especially Pacific ocean perch, were offloaded with the proceeds helping to offset the costs of the survey (Table 8).

SAMPLES AND SPECIMENS

We sampled 62 species of fish for attributes such as length, weight, sex, maturity, and age (Table 9, Table 10, and Table 11).

GEAR AND OCEANOGRAPHIC SENSORS

We collected Seabird 39 data (water temperature and pressure/depth) from 254 tows (Table 12, Figure 11). Several tows were missed due to equipment failure. Although we have not yet analyzed these data in detail, they may prove useful for explaining, or at least correlate to, short term anomalies in abundance trends. In addition, they provide a base reference for detecting future climate change.

We collected bottom contact data from the NMFS Bottom Contact Sensor from 255 tows (Table 12). These data provide a record of the trawl net contact with the sea floor and thus are useful not only for determining the quality and quantity of the sea floor contact, but also indicate the relative rugosity of the sea floor. We used these data to determine the exact times that the trawl net first and last contacted the sea floor, thus providing an accurate measure of total bottom contact time (Figure 12).

Net sensor data, including doorspread, current velocity, and headrope height were collected from most tows but were unavailable from several tows due to equipment failure (Table 12, Figure 13).

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Table 1. Net specifications.

Part	Standard Length	Material	Metric Length	Units	Material
Rigging					
Sweep Line	90	7/8 cable	27.4	m	22 mm cable
Upper bridle	90	3/4 cable	27.4	m	19 mm cable
Lower bridle	90	7/8 cable	27.4	m	22 mm cable
Door Legs	36	7/8 cable	11	m	22 mm cable
Pickups	42	7/8 cable	12.8	m	22 mm cable
Hook ups	8.8 t	BMMDV80	8 mt	mt	BMMDV80
Net frame					
Headline	74.5	5/8 cable	22.7	m	16 mm cable
Headline floats	90	8" plastic Spheres			200 mm plastic spheres
Riblines		1" Polysteel rope			25 mm polysteel rope
Bolsch Line	68.33	9/8" poly steel rope	20.8	m	29 mm polysteel rope
Fishing Line	107.33	14 mm long link chain	32.7	m	14 mm long link chain
Foot Rope					
Foot Rope	107.33	5/8 Chain	32.7	m	16 mm chain
Foot rope bosom	14	16 in Tire gear with 2 in Spacing	4.3	m	400 mm tire gear with 50 mm spacing
Root rope wing1	18.33	18" rock hopper, 18 " disks spaced 18 " apart	5.6	m	450 mm rock hopper 450 mm spacing
Root rope wing2	8.83	18" rock hopper, 18 " disks spaced 18 " apart	2.7	m	450 mm rock hopper 450 mm spacing
Web					
Belly	5"	3.5 mm Euroline	127	mm	3.5 mm Euroline
Square	5"	3.5 mm Euroline	127	mm	3.5 mm Euroline
Side Panel	5"	3.5 mm Euroline	127	mm	3.5 mm Euroline
Taper	4.5"	3.5 mm Euroline	114	mm	3.5 mm Euroline
Intermediate	4.5"	3.5 mm Euroline	114	mm	3.5 mm Euroline
Codend	4.5"	3.5 mm Euroline	114	mm	3.5 mm Euroline
Guard Mesh	4.5 or 5 "	Double 4.5 mm Euroline	114 or 127	mm	Double 4.5 mm Euroline
Liner	3/4"	Notless Nylon	19	mm	Notless Nylon

Table 2. Survey personnel for each leg of the survey.

Leg	Dates	Person	Role	Affiliation
1	July 3rd to July 10th	Chris Roberts	Captain	Leader Fishing
		Norm Olsen	Chief Scientist	DFO
		Ed Choromanski	Science	DFO
		Matt Drake	Science	DFO
		Alex Gray	Science	DFO
		Jody Riley	Science	AMR
		Russell Farrington	Fishing	Leader Fishing
		Mark Lafluer	Engineer	Leader Fishing
		Dylan Lafluer	Fishing	Leader Fishing
		Flo Salm	Fishing	Leader Fishing
2	July 11th to July 18th	Chris Roberts	Captain	Leader Fishing
		Greg Workman	Chief Scientist	DFO
		Matt Drake	Science	DFO
		Alex Gray	Science	DFO
		Matt McKay	Science	AMR
		Jody Riley	Science	AMR
		Russell Farrington	Fishing	Leader Fishing
		Mark Lafluer	Engineer	Leader Fishing
		Dylan Lafluer	Fishing	Leader Fishing
		Flo Salm	Fishing	Leader Fishing
3	July 19th to July 23rd	Chris Roberts	Captain	Leader Fishing
		Rick Stanley	Chief Scientist	DFO
		Karina Cooke	Science	DFO
		Matt Drake	Science	DFO
		Matt McKay	Science	AMR
		Jody Riley	Science	AMR
		Russell Farrington	Fishing	Leader Fishing
		Mark Lafluer	Engineer	Leader Fishing
		Dylan Lafluer	Fishing	Leader Fishing
		Flo Salm	Fishing	Leader Fishing
4	July 24th to August 3rd	Chris Roberts	Captain	Leader Fishing
		Norm Olsen	Chief Scientist	DFO
		Dan Erskine	Science	AMR
		Matt McKay	Science	AMR
		Jody Riley	Science	AMR
		Sarah Tucker	Science	AMR
		Russell Farrington	Fishing	Leader Fishing
		Mark Lafluer	Engineer	Leader Fishing
		Dylan Lafluer	Fishing	Leader Fishing
		Flo Salm	Fishing	Leader Fishing

Notes: AMR = Archipelago Marine Research
DFO = Fisheries and Oceans Canada

Table 3. Definition of survey strata with the target tow allocation and the total area in each.

Areal Stratum	Depth Stratum Meters	Fathoms	Target Tow Allocation	Actual Tow Allocation	Usable Tows	Area (km^2)
South	50 - 125	27 - 68	32	44	33	5,093
	125 - 200	68 - 109	63	75	62	5,582
	200 - 330	109 - 164	27	33	24	2,931
	330 - 500	164 - 273	8	10	7	496
South Total			*130*	*162*	*126*	*14,102*
North	50 - 125	27 - 68	11	27	19	2,024
	125 - 200	68 - 109	49	61	57	4,332
	200 - 330	109 - 164	43	53	48	3,976
	330 - 500	164 - 273	7	7	7	1,220
North Total			*110*	*148*	*131*	*11,552*
Grand Total			***240***	***310***	***257***	**25,654**

Table 4. Mean warp length and scope by depth interval.

Depth (m)	Mean Warp (m)	Mean Warp (fa)	Mean Scope	Mean Depth (fa)
50 - 100	307	168	4.1	42
100 - 150	406	222	3.1	71
150 - 200	505	276	3.0	93
200 - 250	634	346	2.8	123
250 - 300	754	412	2.8	148
300 - 350	858	469	2.7	176
350 - 400	960	525	2.6	202
400 - 450	1106	605	2.5	237
450 - 500	1097	600	2.4	250

Table 5. Summary of survey operations.

Start: Depart PBS	July 3
End: Offload PBS	August 3
Fishing days	23.5
Travel (begin and end)	3
Offload days	4
Weather days	0
Breakdown	1.5
Total days	32
Total tows	277
Keeper tows	257
Unusable tows	20
Inspected un-fished blocks	36
Usable tows per day overall	8
Usable tows per fishing day	10.9
Mean catch per keeper tow	269
Mean species per keeper tow	18

Table 6. Catch broken down by species groups.

Species Category	**Number of Taxa**	**Weight (Kg)**
All Fish	*107*	*71,114*
Rockfish	33	41,359
Flatfish	13	17,231
Roundfish	9	8,076
Cartilaginous fish	7	4,221
Other fish	45	227
Invertebrates	109	1,102

Table 7. All captured species showing number of tows in which the species occurred, total catch weight, maximum and mean per-tow catch weight, and relative abundance and relative error from bootstrapped area expanded estimates.

Species	Number of Tows	Catch Weight (kg) Total	Maximum	Mean	Relative Abundance	RE
Pacific ocean perch	156	16,219.84	1,370.27	103.97	22.656	0.15
Arrowtooth flounder	253	10,945.36	846.03	43.61	20.187	0.14
Silvergray rockfish	172	6,600.34	1,244.29	38.37	12.416	0.21
Redstripe rockfish	78	5,019.59	1,275.78	64.35	12.094	0.40
Pacific hake	152	4,714.83	872.55	31.02	14.038	0.27
Yellowmouth rockfish	83	2,329.85	290.00	28.07	7.272	0.29
Yellowtail rockfish	47	2,167.14	461.21	46.11	6.539	0.37
Spotted ratfish	201	1,960.76	558.56	9.76	8.100	0.31
Sharpchin rockfish	85	1,731.14	331.68	20.37	6.665	0.39
Splitnose rockfish	46	1,695.33	596.89	36.86	5.838	0.55
Redbanded rockfish	140	1,531.07	305.50	10.94	6.546	0.22
Rex sole	215	1,468.27	64.96	6.83	6.986	0.09
Spiny dogfish	123	1,440.24	187.91	11.71	8.488	0.21
Pacific halibut	78	1,363.09	198.77	17.48	11.182	0.23
Dover sole	158	1,304.45	83.10	8.26	8.852	0.15
Sablefish	120	1,238.22	73.92	10.32	9.692	0.12
Canary rockfish	42	1,030.11	212.90	24.53	7.620	0.33
Shortspine thornyhead	94	808.98	58.72	8.61	6.944	0.11
Walleye pollock	121	742.70	112.86	6.35	7.381	0.24
Lingcod	82	693.93	76.34	8.46	8.862	0.19
Southern rock sole	40	642.49	255.50	16.06	10.782	0.40
Pacific cod	115	635.32	82.32	5.52	9.014	0.24
Rougheye rockfish	63	548.68	172.24	8.71	6.299	0.28
English sole	66	485.69	76.64	7.36	8.582	0.24
Flathead sole	81	443.35	64.68	5.47	8.661	0.25
Longnose skate	52	396.93	40.00	7.63	8.575	0.19
Big skate	8	375.76	241.27	46.97	13.723	0.67
Petrale sole	93	318.77	51.66	3.43	8.713	0.17
Yelloweye rockfish	43	296.33	28.98	6.89	7.053	0.19
Shortraker rockfish	10	262.15	68.89	26.22	5.314	0.33
Darkblotched rockfish	35	256.58	109.96	7.33	11.098	0.49
Primnoa	12	253.85	120.73	21.15	-	-
Jellyfish	126	235.01	15.32	1.93	-	-
Greenstriped rockfish	75	219.90	70.58	2.97	9.047	0.34
Quillback rockfish	14	193.65	137.15	13.83	11.217	0.64
Pacific sanddab	40	189.21	62.30	4.73	14.758	0.42
Sponges	29	171.84	113.94	6.14	-	-
Bocaccio	17	167.76	96.46	9.87	13.871	0.60
Glass sponges	60	130.56	17.54	2.18	-	-
Rosethorn rockfish	42	84.95	16.75	2.02	7.751	0.31
Pink shrimp	108	80.14	5.68	0.83	-	-
Widow rockfish	15	78.59	24.32	5.24	5.933	0.50
Blackbelly eelpout	58	55.36	11.48	0.97	6.901	0.34
Slender sole	101	53.83	8.60	0.53	6.856	0.23
Fragile urchin	106	51.85	4.00	0.51	-	-
Ragfish	1	45.08	45.08	45.08	5.120	0.94
Wolf eel	5	39.70	15.18	7.94	8.374	0.56
Pacific herring	20	38.23	9.26	1.91	8.140	0.36
Longspine thornyhead	3	31.85	18.98	10.62	3.514	0.77
Harlequin rockfish	10	28.74	19.60	2.87	5.587	0.86
Sandpaper skate	15	23.25	5.92	1.55	5.554	0.32
Schoolmaster gonate squid	22	22.58	3.20	1.03	-	-
Aleutian skate	4	21.06	7.84	5.27	5.645	0.56
Prawn	70	21.01	1.12	0.30	-	-

Table 7. Continued

Species	Number of Tows	Catch Weight (kg) Total	Maximum	Mean	Relative Abundance	RE
Eulachon	39	20.32	2.61	0.53	5.670	0.26
Chum salmon	4	20.14	9.46	5.04	5.862	0.60
Metridium	8	18.84	12.00	2.36	-	-
Sidestripe shrimp	72	17.06	2.08	0.24	-	-
Aurora rockfish	5	14.67	7.26	2.93	3.747	0.54
Curlfin sole	13	14.66	4.30	1.13	7.599	0.36
Salp	116	14.07	0.46	0.13	-	-
Bigmouth sculpin	3	13.59	4.71	4.53	5.040	0.59
Squids	16	12.74	3.82	0.80	-	-
Copper rockfish	1	11.16	11.16	11.16	7.932	0.98
Pygmy rockfish	28	11.15	3.32	0.41	4.799	0.38
Pacific sand lance	6	9.61	6.68	1.60	10.003	0.81
Pannychia moseleyi	20	8.54	2.36	0.43	-	-
Dusky rockfish	1	6.91	6.91	6.91	4.388	1.02
Threadfin sculpin	15	6.66	2.04	0.44	5.640	0.40
Sand star	19	5.90	0.98	0.31	-	-
Basket star	26	5.47	0.60	0.21	-	-
Giant grenadier	1	5.46	5.46	5.46	3.908	0.89
Blackfin sculpin	29	5.26	0.74	0.18	3.525	0.21
Bath sponges	22	5.16	3.01	0.25	-	-
Golden king crab	4	4.66	1.31	1.17	-	-
Virgularia	26	4.56	0.45	0.18	-	-
Shortbelly rockfish	10	3.93	1.16	0.39	3.258	0.44
Kelp greenling	3	3.45	2.02	1.15	6.235	0.60
Mitridae	4	2.85	1.02	0.71	-	-
Brown cat shark	3	2.76	1.71	0.92	3.310	0.55
Tealia	1	2.62	2.62	2.62	-	-
Fish-eating star	7	2.51	1.53	0.36	-	-
Red king crab	2	2.46	1.72	1.23	-	-
Pacific tomcod	5	2.41	1.28	0.48	3.195	0.53
Whitespotted sea cucumber	5	2.36	1.20	0.47	-	-
Chilipepper	1	2.10	2.10	2.10	2.279	1.00
Jack mackerel	1	2.04	2.04	2.04	4.448	0.98
Sea whip	9	1.87	0.74	0.23	-	-
Black eelpout	16	1.85	0.32	0.12	3.003	0.37
Spiny red sea star	5	1.73	0.68	0.35	-	-
Green urchin	8	1.61	0.60	0.20	-	-
Molpadiidae	10	1.58	0.36	0.16	-	-
China rockfish	1	1.56	1.56	1.56	4.321	0.99
Glass shrimp	9	1.56	0.62	0.26	-	-
Tiger rockfish	1	1.56	1.56	1.56	3.604	1.00
Wattled eelpout	5	1.52	0.46	0.30	2.984	0.48
Giant red sea cucumber	4	1.51	0.78	0.38	-	-
Box crabs	3	1.49	0.59	0.50	-	-
Poraniopsis inflata	6	1.31	0.67	0.22	-	-
Puget sound rockfish	3	1.25	1.08	0.42	3.256	0.80
Heart urchins	10	1.22	0.22	0.12	-	-
Vermilion rockfish	2	1.13	1.12	0.57	4.983	0.99
Pacific sardine	4	1.06	0.38	0.27	4.205	0.50
Scallop	4	1.02	0.29	0.26	-	-
Deepsea sole	1	0.97	0.97	0.97	2.773	0.92
Bigeye poacher	10	0.95	0.16	0.10	2.857	0.46
Oregontriton	10	0.95	0.19	0.10	-	-
Stripetail rockfish	1	0.95	0.95	0.95	3.258	1.01
Butter sole	1	0.92	0.92	0.92	5.691	0.96

Table 7. Continued

Species	Number of Tows	Catch Weight (kg) Total	Maximum	Mean	Relative Abundance	RE
Shortfin eelpout	3	0.92	0.72	0.31	4.494	0.74
Histioteuthidae	7	0.78	0.64	0.13	-	-
Mud star	10	0.64	0.32	0.07	-	-
Sea lilies and feather stars	16	0.62	0.32	0.10	-	-
Spotfin sculpin	9	0.61	0.14	0.07	2.953	0.41
Sunflower starfish	1	0.58	0.58	0.58	-	-
Pacific bobtail squid	20	0.56	0.11	0.04	-	-
Anemone	9	0.54	0.20	0.07	-	-
Northern lampfish	8	0.53	0.24	0.07	3.664	0.52
Spiny scallop	1	0.52	0.52	0.52	-	-
Halocynthia hilgendorfi	7	0.46	0.16	0.08	-	-
Cheiraster dawsoni	6	0.43	0.18	0.07	-	-
Flapjack devilfish	1	0.40	0.40	0.40	-	-
Bigfin eelpout	1	0.34	0.34	0.34	2.250	0.97
Sand lances	9	0.34	0.15	0.06	-	-
Papillose sea cucumber	2	0.30	0.18	0.15	-	-
Synallactidae	9	0.29	0.09	0.04	-	-
Polychaete worms	6	0.27	0.22	0.14	-	-
Pacific viperfish	5	0.26	0.11	0.05	3.529	0.52
Snake prickleback	3	0.26	0.11	0.09	3.188	0.59
Neptuneidae	1	0.25	0.25	0.25	-	-
Prowfish	4	0.24	0.10	0.08	2.845	0.58
Rose starfish	7	0.24	0.11	0.04	-	-
Nearchaster	1	0.22	0.22	0.22	-	-
Pacific flatnose	1	0.22	0.22	0.22	4.478	0.99
Ascidia	4	0.21	0.18	0.05	-	-
Gorgonocephalus	2	0.21	0.15	0.11	-	-
Hagfishes	1	0.21	0.21	0.21	-	-
Henricia asthenactis	7	0.20	0.10	0.04	-	-
Blackmouth eelpout	2	0.19	0.17	0.10	0.271	0.94
Ceramaster japonicus	3	0.18	0.12	0.06	-	-
Paragorgia arborea	1	0.18	0.18	0.18	-	-
Slim sculpin	3	0.18	0.12	0.06	2.435	0.68
Squat lobster	16	0.18	0.10	0.03	-	-
Doridídae	3	0.15	0.14	0.08	-	-
Isopods	47	0.15	0.10	0.03	-	-
Hippasteria californica	1	0.14	0.14	0.14	-	-
Pallid slipskin	1	0.14	0.14	0.14	2.023	0.93
Winged sea star	3	0.14	0.08	0.07	-	-
Pacific lamprey	1	0.12	0.12	0.12	2.351	0.95
Sturgeon poacher	1	0.12	0.12	0.12	2.681	0.95
Redclaw crab	8	0.11	0.06	0.02	-	-
Henricia aspera	6	0.10	0.05	0.02	-	-
Pacific red octopus	1	0.10	0.10	0.10	-	-
Rockfishes	7	0.09	0.06	0.02	-	-
Henricia	1	0.08	0.08	0.08	-	-
Northern ronquil	2	0.08	0.05	0.04	2.088	0.70
Ophiuroidea	10	0.08	0.06	0.04	-	-
Roughback sculpin	3	0.08	0.04	0.04	3.255	0.68
Ceramaster arcticus	2	0.06	0.04	0.03	-	-
Pterasteridae	3	0.06	0.04	0.03	-	-
Blue lanternfish	7	0.05	0.05	0.05	2.355	0.94
Decorated warbonnet	1	0.05	0.05	0.05	2.082	0.98
Goose barnacle	1	0.05	0.05	0.05	-	-
Ctenophora	3	0.04	0.03	0.02	-	-

Table 7. Continued

Species	Number of Tows	Catch Weight (kg) Total	Maximum	Mean	Relative Abundance	RE
Cucumariidae	2	0.04	0.02	0.02	-	-
Pteraster jordani	3	0.04	0.02	0.01	-	-
Soft sea cucumber	1	0.04	0.04	0.04	-	-
Sweet potato sea cucumber	3	0.04	0.02	0.01	-	-
Topshells	4	0.04	0.02	0.01	-	-
Vermillion starfish	3	0.04	0.02	0.01	-	-
Lophaster furcilliger	1	0.03	0.03	0.03	-	-
Sockeye salmon	1	0.03	0.03	0.03	1.423	0.96
California headlightfish	9	0.02	0.02	0.02	1.608	0.93
Crangons	12	0.02	0.01	0.01	-	-
Long-armed sea star	1	0.02	0.02	0.02	-	-
Opalescent inshore squid	2	0.02	0.02	0.02	-	-
Pink salmon	1	0.02	0.02	0.02	1.222	1.01
Smoothplated pentamera	2	0.02	0.01	0.01	-	-
Snailfishes	3	0.02	0.01	0.01	-	-
Solasteridae	1	0.02	0.02	0.02	-	-
Tunicata	1	0.02	0.02	0.02	-	-
Aphroditidae	2	0.01	0.01	0.01	-	-
Bryozoa	3	0.01	0.01	0.01	-	-
Cushion star	1	0.01	0.01	0.01	-	-
Gastropods	2	0.01	0.01	0.01	-	-
Lanternfishes	1	0.01	0.01	0.01	-	-
Lithodinae	1	0.01	0.01	0.01	-	-
Lowcrest hatchetfish	1	0.01	0.01	0.01	1.434	0.95
Oliveshells	2	0.01	0.01	0.01	-	-
Pteraster marsippus	2	0.01	0.01	0.01	-	-
Red rock crab	1	0.01	0.01	0.01	-	-
Shrimp	1	0.01	0.01	0.01	-	-
Smalldisk snailfish	1	0.01	0.01	0.01	0.922	0.93
Unknown fish	5	0.01	0.01	0.01	1.000	0.99
Yellowleg shrimp	6	0.01	0.01	0.01	-	-
Barnacles	1	-	-	-	-	-
Blacktip poacher	1	-	-	-	-	-
Blood star	1	-	-	-	-	-
Brachiopods	1	-	-	-	-	-
Crangon franciscorum	1	-	-	-	-	-
Deepsea eualid	2	-	-	-	-	-
Deepwater decorator crab	1	-	-	-	-	-
Diplopteraster multipes	1	-	-	-	-	-
Eualus	5	-	-	-	-	-
Graceful decorator crab	1	-	-	-	-	-
Hiatellidae	2	-	-	-	-	-
Lanternfish	3	-	-	-	-	-
Leptychaster arcticus	1	-	-	-	-	-
Macoma	2	-	-	-	-	-
Ophiacantha	18	-	-	-	-	-
Ophiopholis	2	-	-	-	-	-
Ophiura	12	-	-	-	-	-
Ophiuridae	2	-	-	-	-	-
Pacific softpout	1	-	-	-	-	-
Pink shrimp (flexed)	1	-	-	-	-	-
Poachers	1	-	-	-	-	-
Tube worms	3	-	-	-	-	-
Turtle crab	1	-	-	-	-	-
Yoldias	1	-	-	-	-	-

Table 8. Offloaded catch weight by species.

Species	Weight (kg)
Aurora Rockfish	0.9
Bocaccio	120.2
Canary Rockfish	494.9
Chilipepper	1.8
Darkblotched Rockfish	218.6
Dover Sole	439.5
English Sole	53.5
Greenstriped Rockfish	116.6
Harlequin Rockfish	17.7
Lingcod	197.8
Pacific Cod	107.0
Pacific Ocean Perch	14,702.3
Petrale Sole	101.6
Quillback Rockfish	168.7
Redbanded Rockfish	1,266.9
Redstripe Rockfish	3,321.7
Rex Sole	300.7
Rosethorn Rockfish	25.4
Rougheye Rockfish	548.4
Sablefish	180.5
Sharpchin Rockfish	1,214.7
Shortraker Rockfish	211.4
Shortspine Thornyhead	696.7
Silvergray Rockfish	5,576.0
Southern Rock Sole	184.6
Splitnose Rockfish	1,569.0
Widow Rockfish	62.6
Yelloweye Rockfish	166.9
Yellowmouth Rockfish	2,187.7
Yellowtail Rockfish	1,571.7
Total	**35,826**

Table 9. Number of samples and number of recorded biological attributes per species sampled.

Species	Samples	Lengths	Weights	Sexes	Maturities	Ages
Aleutian skate	4	4	4	4	0	0
Arrowtooth flounder	87	3,875	2,139	3,874	2,135	910
Aurora rockfish	3	29	23	29	22	22
Big skate	7	33	3	33	0	0
Bigmouth sculpin	1	1	1	1	0	0
Blackbelly eelpout	16	965	0	141	0	0
Bocaccio	15	43	43	43	43	43
Brown cat shark	3	7	3	7	0	0
Canary rockfish	13	339	244	339	242	227
China rockfish	1	2	0	2	0	0
Copper rockfish	1	12	0	12	0	0
Curlfin sole	2	17	0	17	0	0
Darkblotched rockfish	27	222	160	222	144	144
Dover sole	29	893	559	893	558	303
Dusky rockfish	1	4	0	4	0	0
English sole	29	1,288	629	1,288	628	389
Eulachon	8	356	1	0	0	0
Flathead sole	37	1,157	289	1,158	289	212
Greenstriped rockfish	20	341	182	341	181	104
Harlequin rockfish	2	48	0	48	0	0
Kelp greenling	2	7	2	7	0	0
Lingcod	74	154	69	154	20	0
Longnose skate	51	66	46	65	0	0
Longspine thornyhead	2	107	84	107	78	84
Northern ronquil	1	1	1	1	0	0
Pacific cod	103	801	801	801	801	189
Pacific hake	45	1,974	1,308	1,971	1,303	917
Pacific halibut	73	268	41	2	0	0
Pacific ocean perch	79	4,084	2,967	4,083	2,964	1,304
Pacific sand lance	1	56	0	0	0	0
Pacific sanddab	13	592	285	592	285	232
Petrale sole	21	263	191	263	188	188
Puget sound rockfish	1	18	0	18	0	0
Pygmy rockfish	3	133	84	133	84	0
Quillback rockfish	9	135	81	135	79	79
Redbanded rockfish	106	878	819	877	780	782
Redstripe rockfish	36	1,399	1,151	1,399	1,149	565
Rex sole	51	2,234	1,270	2,234	1,270	720
Rosethorn rockfish	15	222	2	222	0	0
Rougheye rockfish	13	194	93	194	93	85
Sablefish	40	441	130	441	123	86
Sandpaper skate	13	13	13	13	0	0
Sharpchin rockfish	34	1,333	819	1,333	818	409
Shortbelly rockfish	2	34	0	34	0	0
Shortraker rockfish	10	43	43	42	42	43
Shortspine thornyhead	59	2,112	931	2,112	925	476
Silvergray rockfish	99	2,151	916	2,151	911	517
Slender sole	8	255	0	255	0	0
Snake prickleback	1	1	1	0	0	0
Southern rock sole	21	478	430	478	429	429
Spiny dogfish	22	699	2	699	0	0
Splitnose rockfish	16	507	363	507	363	188
Spotted ratfish	22	898	0	898	0	0
Threadfin sculpin	1	10	0	0	0	0
Tiger rockfish	1	1	1	1	0	0
Vermilion rockfish	1	1	1	1	0	0
Walleye pollock	25	922	334	922	333	134
Widow rockfish	2	23	0	23	0	0
Wolf eel	2	2	2	0	0	0
Yelloweye rockfish	36	70	28	70	0	0
Yellowmouth rockfish	35	1,108	647	1,108	639	427
Yellowtail rockfish	20	514	374	514	373	304
Total	**1,475**	**34,838**	**18,610**	**33,316**	**18,292**	**10,512**

Table 10. Numbers of samples and specimens by sample type and species.

	Total		Len/Sex		Len/Sex/Wt		Len/Sex/Wt/Age	
Species	N	n	N	n	N	n	N	n
Aleutian skate	4	4	0	0	4	4	0	0
Arrowtooth flounder	87	3,875	48	1,736	21	1,229	18	910
Aurora rockfish	3	29	1	6	1	1	1	22
Big skate	7	33	4	30	3	3	0	0
Bigmouth sculpin	1	1	0	0	1	1	0	0
Blackbelly eelpout	16	965	16	965	0	0	0	0
Bocaccio	15	43	0	0	0	0	15	43
Brown cat shark	3	7	0	0	3	7	0	0
Canary rockfish	13	339	6	79	3	33	4	227
China rockfish	1	2	1	2	0	0	0	0
Copper rockfish	1	12	1	12	0	0	0	0
Curlfin sole	2	17	2	17	0	0	0	0
Darkblotched rockfish	27	222	7	52	14	26	6	144
Dover sole	29	893	16	318	8	272	5	303
Dusky rockfish	1	4	1	4	0	0	0	0
English sole	29	1,288	18	659	5	240	6	389
Eulachon	8	356	7	355	0	0	0	0
Flathead sole	37	1,157	32	869	2	76	3	212
Greenstriped rockfish	20	341	15	155	3	82	2	104
Harlequin rockfish	2	48	2	48	0	0	0	0
Kelp greenling	2	7	0	0	2	7	0	0
Lingcod	74	154	26	83	48	71	0	0
Longnose skate	51	66	7	18	44	48	0	0
Longspine thornyhead	2	107	1	23	0	0	1	84
Northern ronquil	1	1	0	0	1	1	0	0
Pacific cod	103	801	0	0	89	278	14	189
Pacific hake	45	1,974	23	666	7	391	15	917
Pacific halibut	73	268	32	227	0	0	0	0
Pacific ocean perch	79	4,084	28	1,117	28	1,659	23	1,304
Pacific sand lance	1	56	1	56	0	0	0	0
Pacific sanddab	13	592	8	307	1	53	4	232
Petrale sole	21	263	9	65	3	10	9	188
Puget sound rockfish	1	18	1	18	0	0	0	0
Pygmy rockfish	3	133	2	49	1	84	0	0
Quillback rockfish	9	135	7	54	1	2	1	79
Redbanded rockfish	106	878	14	38	31	58	61	782
Redstripe rockfish	36	1,399	14	237	12	597	10	565
Rex sole	51	2,234	25	964	12	550	14	720
Rosethorn rockfish	15	222	13	209	2	13	0	0
Rougheye rockfish	13	194	9	101	1	8	3	85
Sablefish	40	441	29	263	8	92	3	86
Sandpaper skate	13	13	0	0	13	13	0	0
Sharpchin rockfish	34	1,333	19	514	6	410	9	409
Shortbelly rockfish	2	34	2	34	0	0	0	0
Shortraker rockfish	10	43	0	0	0	0	10	43
Shortspine thornyhead	59	2,112	40	1,175	10	461	9	476
Silvergray rockfish	99	2,151	76	1,200	13	434	10	517
Slender sole	8	255	8	255	0	0	0	0
Snake prickleback	1	1	0	0	0	0	0	0
Southern rock sole	21	478	8	44	1	5	12	429
Spiny dogfish	22	699	20	687	2	12	0	0
Splitnose rockfish	16	507	9	144	3	175	4	188
Spotted ratfish	22	898	22	898	0	0	0	0
Threadfin sculpin	1	10	1	10	0	0	0	0
Tiger rockfish	1	1	0	0	1	1	0	0
Vermilion rockfish	1	1	0	0	1	1	0	0
Walleye pollock	25	922	17	566	4	222	4	134
Widow rockfish	2	23	2	23	0	0	0	0
Wolf eel	2	2	0	0	0	0	0	0
Yelloweye rockfish	36	70	12	40	24	30	0	0
Yellowmouth rockfish	35	1,108	21	453	6	228	8	427
Yellowtail rockfish	20	514	12	136	2	74	6	304
Total	**1,475**	**34,838**	**695**	**15,981**	**445**	**7,962**	**290**	**10,512**

Table 11. Statistics of individual length and weight, and sex proportion by species.

	Length (cm)			Weight (kg)			Sex Proportion	
Species	Min.	Max.	Mean	Min.	Max.	Mean	Male	Female
Aleutian skate	82.0	114.0	97.7	2.87	7.84	5.26	0.00	1.00
Arrowtooth flounder	11.5	81.8	39.6	0.01	5.53	0.66	0.41	0.59
Aurora rockfish	16.0	40.0	28.2	0.06	0.76	0.33	0.41	0.59
Big skate	60.0	153.0	103.4	3.94	48.50	22.06	0.61	0.39
Bigmouth sculpin	59.0	59.0	59.0	4.58	4.58	4.58	0.00	1.00
Blackbelly eelpout	7.0	29.0	19.1				0.15	0.00
Bocaccio	22.6	78.5	64.5	0.37	6.02	3.68	0.72	0.28
Brown cat shark	34.0	55.0	46.0	0.38	0.68	0.48	0.71	0.29
Canary rockfish	29.4	62.9	49.4	0.42	3.76	2.15	0.61	0.39
China rockfish	33.0	34.0	33.5				1.00	0.00
Copper rockfish	28.0	44.0	35.3				0.75	0.25
Curlfin sole	23.0	34.0	28.4				0.35	0.65
Darkblotched rockfish	11.0	84.8	36.1	0.10	2.30	1.18	0.47	0.53
Dover sole	21.5	60.2	38.1	0.17	2.55	0.59	0.59	0.41
Dusky rockfish	46.0	49.0	47.7				0.00	1.00
English sole	17.4	49.5	29.9	0.06	1.38	0.24	0.59	0.41
Eulachon	9.0	24.1	14.1	0.25	0.25	0.25	0.00	0.00
Flathead sole	12.0	38.0	29.4	0.05	0.47	0.22	0.40	0.60
Greenstriped rockfish	9.0	42.5	29.3	0.08	0.71	0.37	0.50	0.50
Harlequin rockfish	20.0	32.0	25.0				0.35	0.65
Kelp greenling	27.0	39.0	31.2	0.34	0.82	0.58	0.14	0.86
Lingcod	46.0	109.0	73.3	0.80	12.00	4.07	0.18	0.82
Longnose skate	48.0	128.0	91.2	0.60	16.99	6.27	0.64	0.35
Longspine thornyhead	7.2	30.0	20.1	0.00	0.28	0.11	0.54	0.46
Northern ronquil	16.0	16.0	16.0	0.03	0.03	0.03	1.00	0.00
Pacific cod	17.9	80.7	34.8	0.05	5.81	0.67	0.55	0.45
Pacific hake	15.3	74.3	44.5	0.02	3.11	0.66	0.46	0.54
Pacific halibut	42.0	123.0	71.9	1.94	21.92	6.87	0.00	0.01
Pacific ocean perch	8.4	60.0	36.5	0.01	1.77	0.74	0.50	0.50
Pacific sand lance	8.0	19.0	14.7				0.00	0.00
Pacific sanddab	7.8	33.0	21.5	0.00	0.36	0.09	0.46	0.54
Petrale sole	19.0	61.0	39.9	0.08	2.90	0.75	0.63	0.37
Puget sound rockfish	13.0	18.0	16.1				0.11	0.89
Pygmy rockfish	9.8	20.0	14.7	0.01	0.08	0.04	0.59	0.41
Quillback rockfish	19.0	45.7	34.9	0.17	1.91	0.94	0.56	0.44
Redbanded rockfish	10.5	63.7	41.1	0.02	4.83	1.39	0.55	0.45
Redstripe rockfish	13.0	67.3	29.2	0.03	1.14	0.37	0.51	0.49
Rex sole	12.4	45.0	30.7	0.01	0.63	0.20	0.64	0.36
Rosethorn rockfish	10.0	33.0	25.3	0.23	0.46	0.35	0.55	0.45
Rougheye rockfish	18.3	68.0	42.8	0.09	3.29	1.40	0.49	0.51
Sablefish	32.0	96.0	57.4	1.09	4.34	2.08	0.72	0.28
Sandpaper skate	32.0	108.0	57.8	0.10	5.92	1.42	0.77	0.23
Sharpchin rockfish	10.0	39.4	25.5	0.01	1.00	0.30	0.43	0.57
Shortbelly rockfish	13.0	25.0	16.0				0.41	0.59
Shortraker rockfish	50.9	98.0	69.7	2.31	15.56	6.07	0.49	0.49
Shortspine thornyhead	4.0	55.2	26.4	0.00	2.39	0.28	0.59	0.41
Silvergray rockfish	14.0	99.0	51.2	0.58	4.16	1.80	0.64	0.36
Slender sole	11.0	31.0	23.1				0.47	0.53
Snake prickleback	8.0	8.0	8.0	0.00	0.00	0.00	0.00	0.00
Southern rock sole	13.5	54.2	34.1	0.02	2.69	0.67	0.36	0.64
Spiny dogfish	34.0	97.0	66.2	1.83	1.94	1.89	0.63	0.37
Splitnose rockfish	10.0	38.2	26.2	0.15	1.02	0.37	0.58	0.42
Spotted ratfish	13.0	50.0	29.4				0.47	0.53
Threadfin sculpin	21.0	27.0	23.1				0.00	0.00
Tiger rockfish	42.0	42.0	42.0	1.56	1.56	1.56	0.00	1.00
Vermilion rockfish	38.0	38.0	38.0	1.12	1.12	1.12	1.00	0.00
Walleye pollock	10.9	62.0	27.9	0.04	1.61	0.38	0.43	0.57
Widow rockfish	25.0	59.0	40.3				0.57	0.43
Wolf eel	116.0	127.0	121.5	3.42	3.92	3.67	0.00	0.00
Yelloweye rockfish	37.0	68.0	55.1	1.69	6.10	3.30	0.53	0.47
Yellowmouth rockfish	7.0	53.3	33.6	0.00	2.35	0.87	0.57	0.43
Yellowtail rockfish	24.0	57.4	44.3	0.61	3.34	1.43	0.62	0.38

Table 12. Data collected from net sensors, showing the number of tows from which each data type was collected (total number of survey tows is 277).

Sensor	Attribute	Num. Tows	Num. Records
Nmfs bottom contact sensor	Bottom contact sensor tilt angle	255	61,392
Scanmar scanbas sru 06 / sgm 15	Bottom depth	275	352,896
Scanmar scanbas sru 06 / sgm 15	Cross-current water velocity at net depth	263	338,922
Scanmar scanbas sru 06 / sgm 15	Density of fish in net	273	261,055
Scanmar scanbas sru 06 / sgm 15	Net depth	273	351,545
Scanmar scanbas sru 06 / sgm 15	Trawl net doorspread	275	375,070
Scanmar scanbas sru 06 / sgm 15	Trawl net headrope to bottom distance	273	261,056
Scanmar scanbas sru 06 / sgm 15	Vessel direction - compass bearing true north	275	355,959
Scanmar scanbas sru 06 / sgm 15	Vessel position - latitude	275	355,958
Scanmar scanbas sru 06 / sgm 15	Vessel position - longitude	275	355,958
Scanmar scanbas sru 06 / sgm 15	Vessel speed over ground	275	355,959
Scanmar scanbas sru 06 / sgm 15	Water temperature at net depth	274	351,479
Scanmar scanbas sru 06 / sgm 15	Water velocity at net depth	263	338,922
Seabird sbe19plus seacat profiler	Dissolved oxygen	254	166,962
Seabird sbe19plus seacat profiler	Net depth	254	166,962
Seabird sbe19plus seacat profiler	Salinity at net depth	254	166,962
Seabird sbe19plus seacat profiler	Water temperature at net depth	254	166,962
Seabird sbe39 temperature and pressure sensor	Net depth	254	54,562
Seabird sbe39 temperature and pressure sensor	Water temperature at net depth	254	54,562

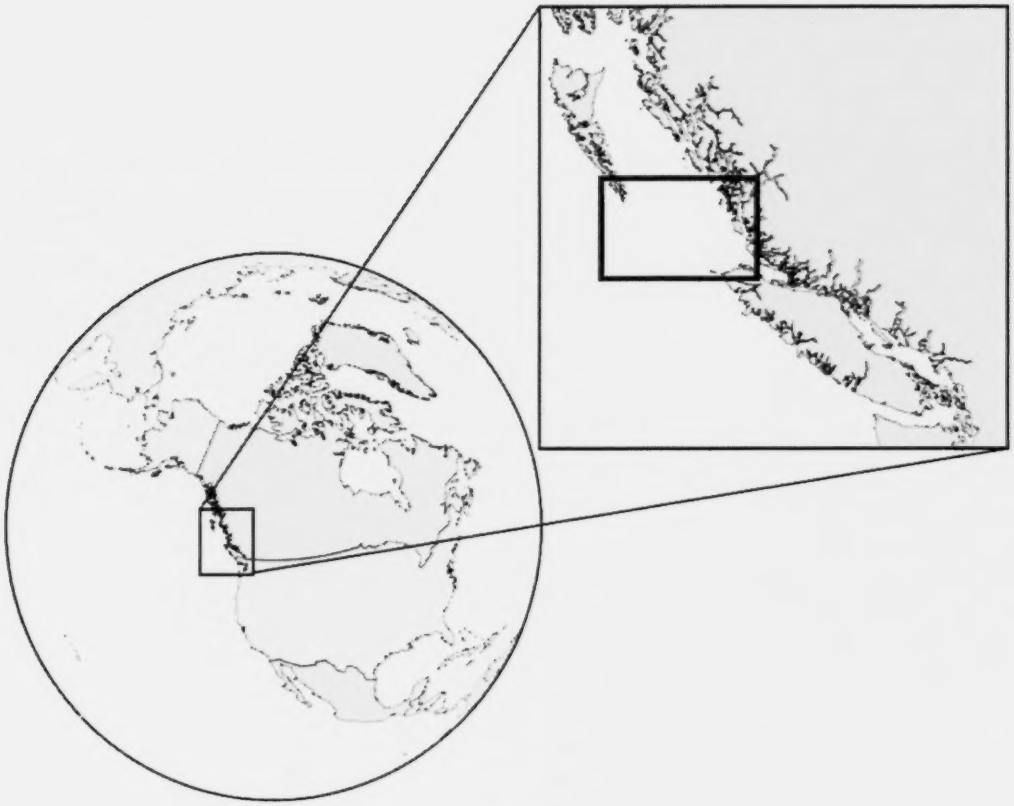

Figure 1. Location of Queen Charlotte Sound on the coast of British Columbia, Canada.

Figure 2. The commercial stern trawler F/V Viking Storm.

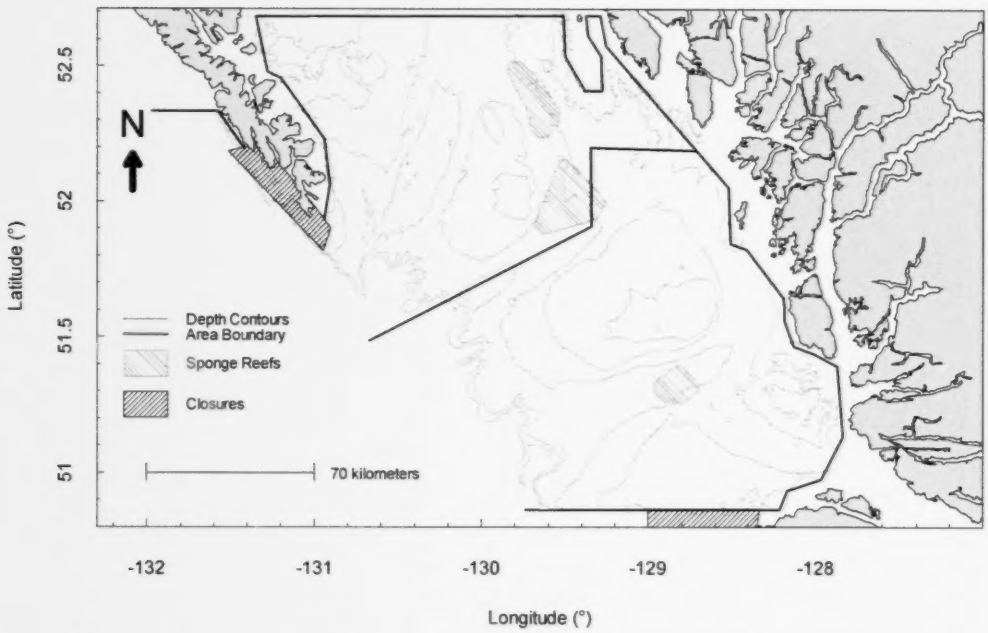

Figure 3. The Queen Charlotte Sound study area showing area boundary, fishing closures, sponge reef protected areas, and depth contours.

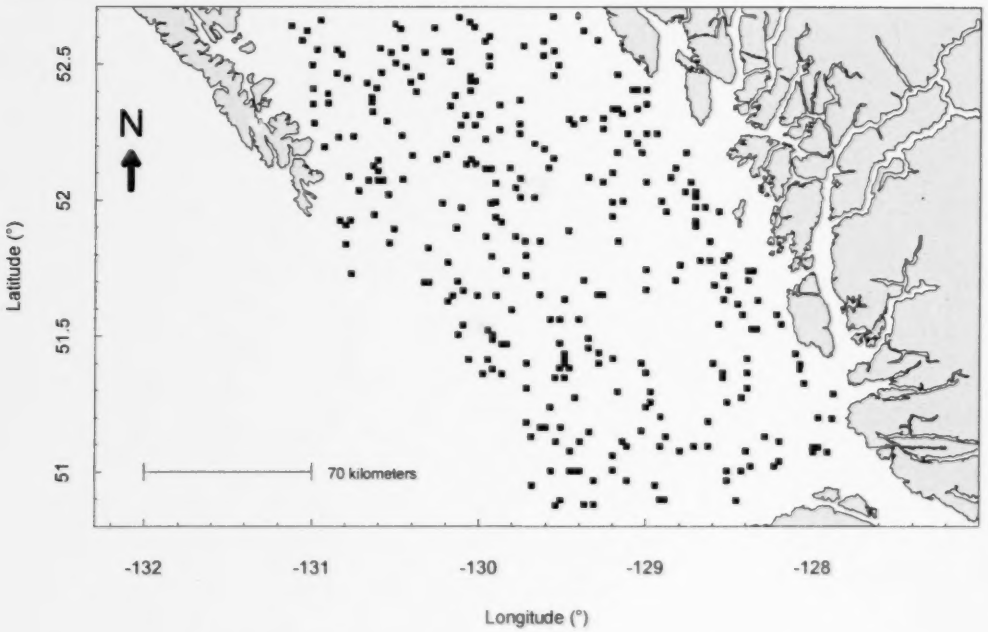

Figure 4. Initial status of the sampling frame showing the 310 primary fishing locations.

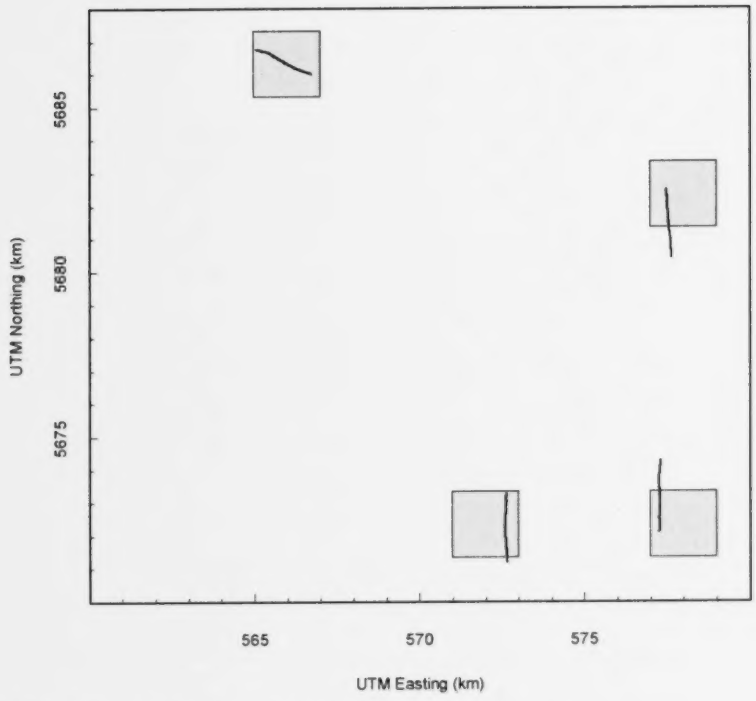

Figure 5. Example tow tracks from 2007.

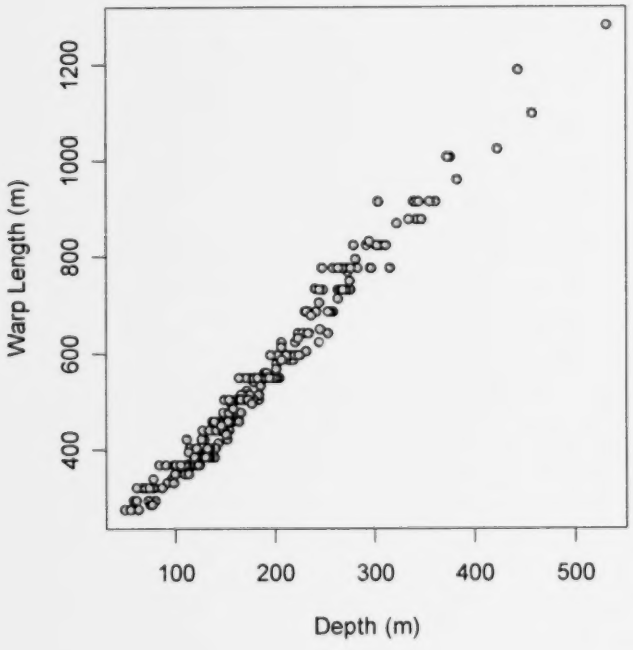

Figure 6. Warp length vs. starting depth.

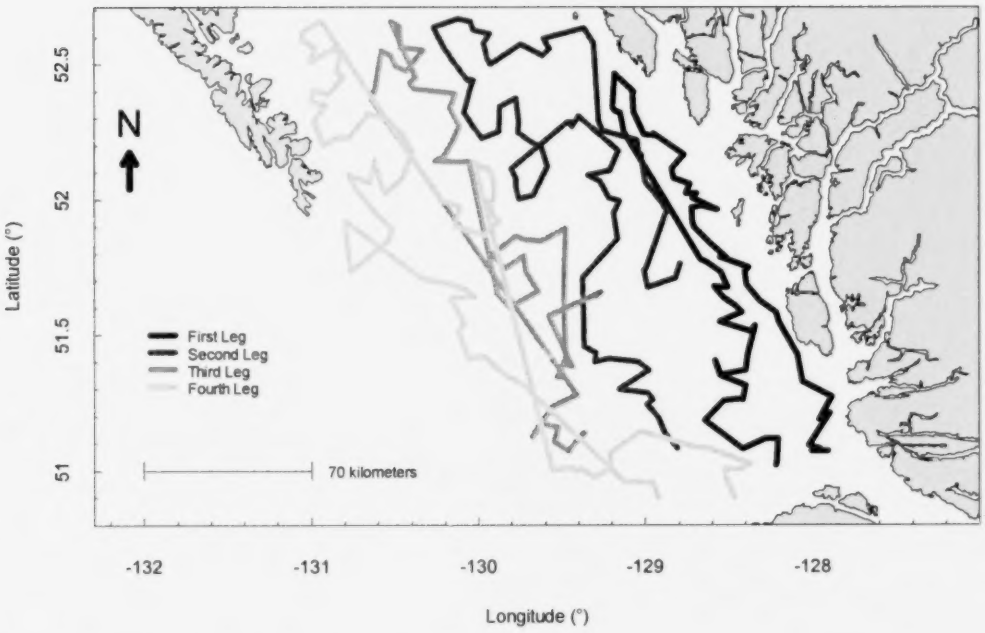

Figure 7. The paths followed on each leg of the survey.

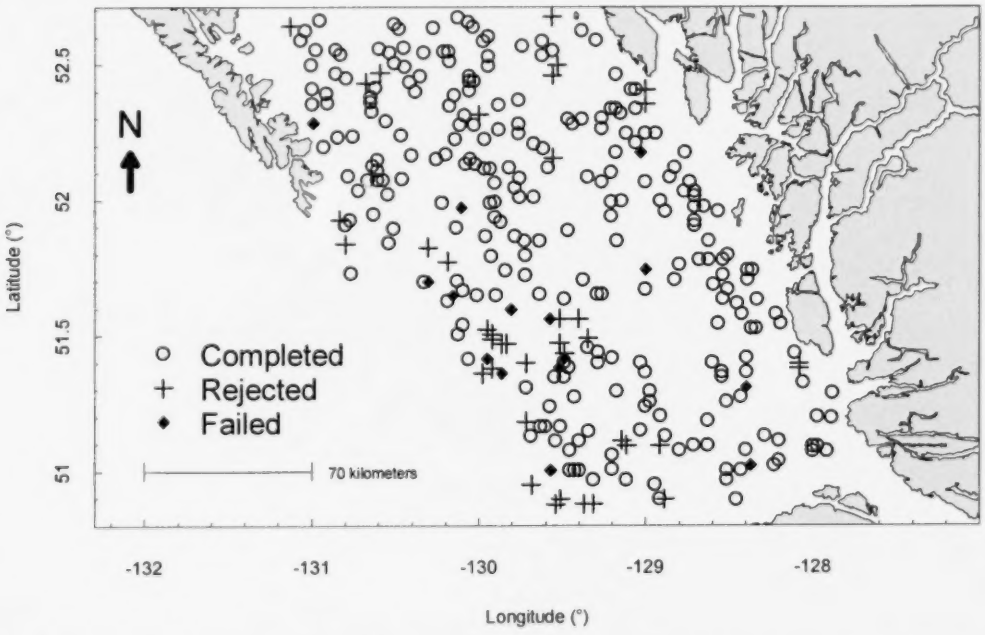

Figure 8. Final status of the sampling frame showing locations that were fished successfully (completed), rejected prior to fishing (rejected), or abandoned after one or more unsuccessful fishing attempts (failed).

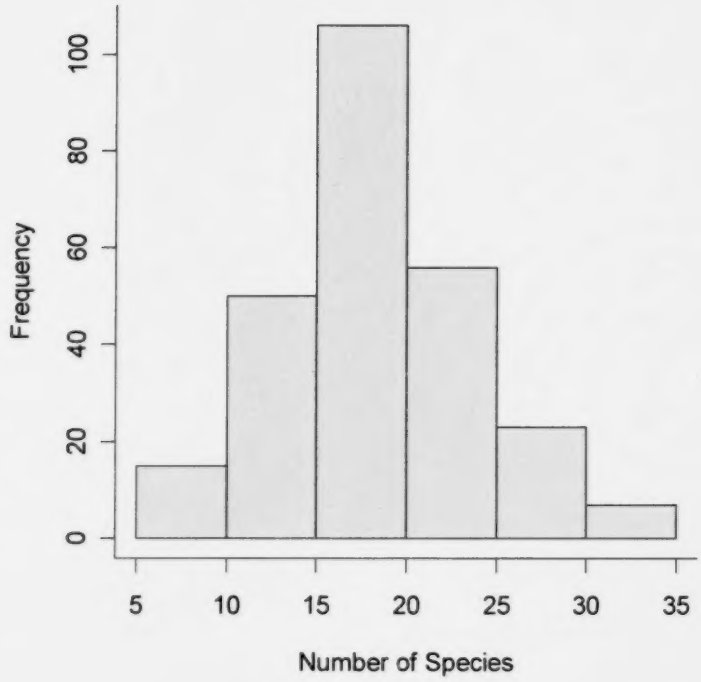

Figure 9. Histogram of number of species caught per tow.

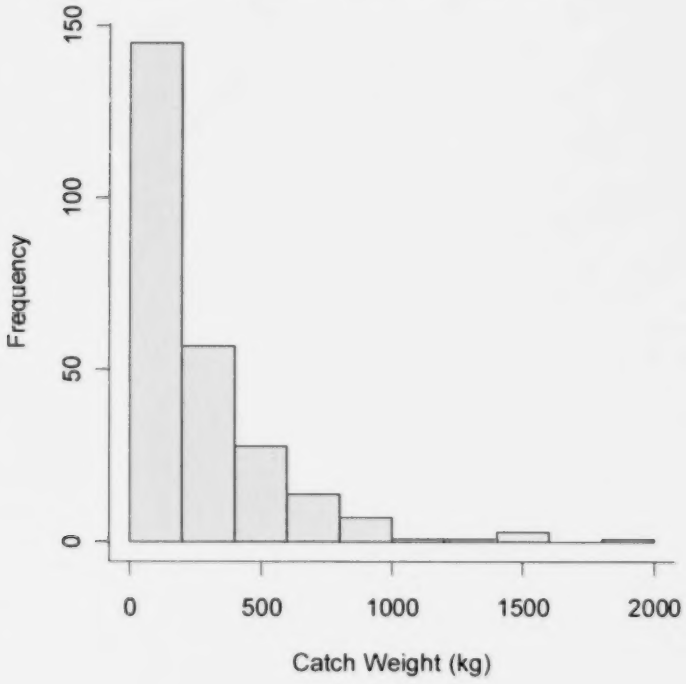

Figure 10. Histogram of catch weight per tow.

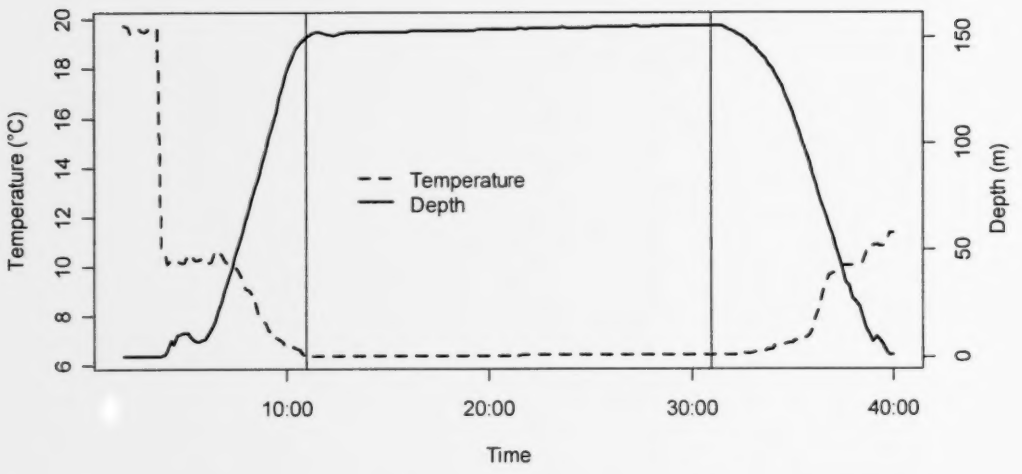

Figure 11. Seabird 39 temperature and depth profile from tow number 1. The vertical lines indicate the start and end of net contact with the sea floor.

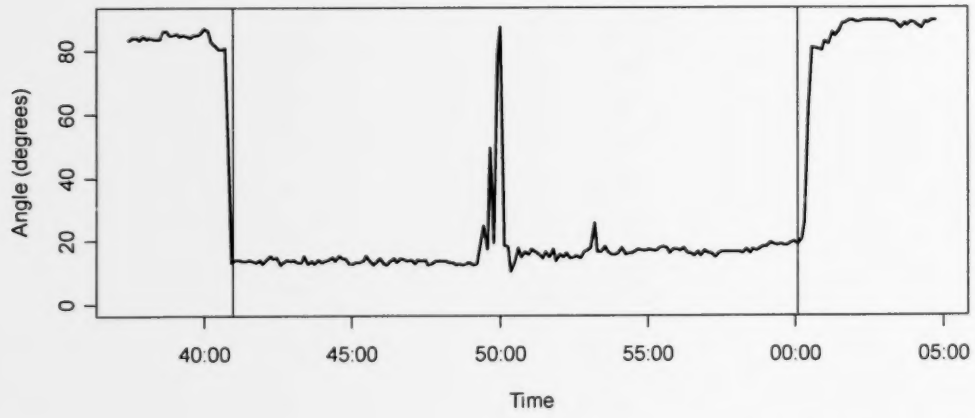

Figure 12. NMFS bottom contact sensor profile from tow number 25. The vertical lines indicate the start and end of net contact with the sea floor.

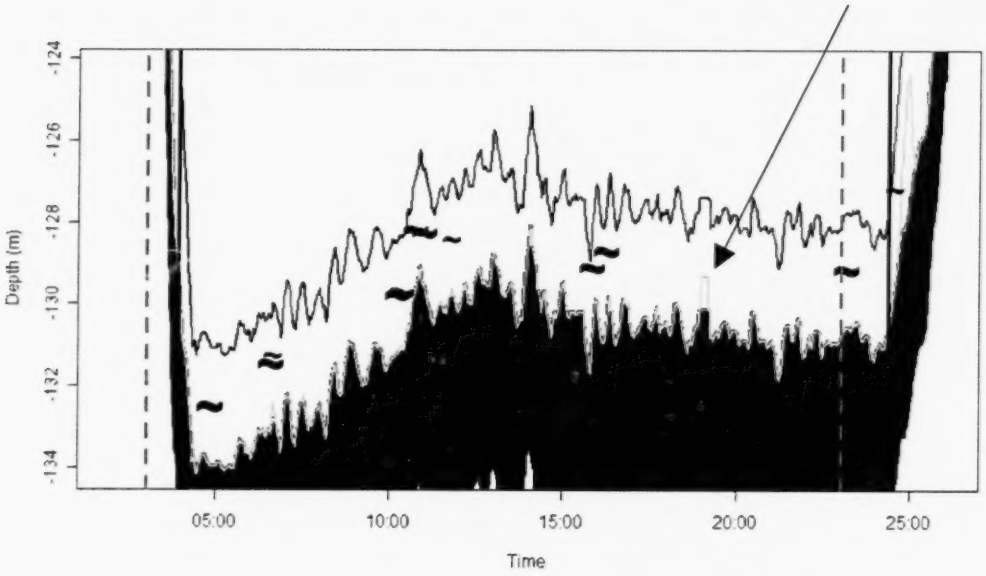

Figure 13. Example plot of net sensor data. The solid dark area at the bottom represents the sea floor. The light grey line directly above that represents the net footrope (note the region indicated by the arrow, showing where the net has risen off the sea floor for a brief period). The top line indicates the net headrope. The symbols between the headrope and the footrope indicate where fish have entered the net.

APPENDIX A: BRIDGE LOG

Tow	Date	Time	Latitude	Longitude	Depth (m)	Duration (min)	Speed (km/h)	Warp (m)	Catch (kg)	Usable?
1	Jul 04	15:06	51.0715	127.9095	165	20	6.1	457	454.3	Yes
2	Jul 04	16:51	51.0743	128.0067	153	17	5.0	457	301.2	Yes
3	Jul 04	18:04	51.0792	127.9552	160	21	6.1	476	482.6	Yes
4	Jul 04	19:37	51.0943	128.0208	138	19	5.1	457	77.6	Yes
5	Jul 05	05:43	51.2117	127.8938	130	20	6.1	421	782.4	Yes
6	Jul 05	06:51	51.1902	127.9605	127	20	5.7	421	275.0	Yes
7	Jul 05	08:40	51.2720	127.8873	135	19	6.4	439	402.6	Yes
8	Jul 05	10:19	51.3280	128.0635	186	19	5.5	530	327.8	Yes
9	Jul 05	12:34	51.4253	128.0902	112	21	5.9	421	136.4	Yes
10	Jul 05	14:18	51.5490	128.2002	79	17	6.4	338	45.8	Yes
11	Jul 05	15:29	51.5865	128.2200	110	19	6.3	348	78.7	Yes
12	Jul 05	16:50	51.6287	128.3138	150	20	6.1	457	311.4	Yes
13	Jul 05	17:58	51.6883	128.3972	144	20	5.7	457	95.3	Yes
14	Jul 05	18:52	51.7345	128.4040	145	20	6.1	457	198.5	Yes
15	Jul 05	19:43	51.7512	128.3832	145	19	6.3	457	143.3	Yes
16	Jul 06	05:45	51.7872	128.5530	141	19		457	111.3	Yes
17	Jul 06	06:34	51.7868	128.5173	139	20	5.3	457	99.8	Yes
18	Jul 06	07:46	51.8447	128.6217	138	19	5.5	457	159.9	Yes
19	Jul 06	08:57	51.8960	128.7075	140	20	5.5	457	123.3	Yes
20	Jul 06	09:59	51.9132	128.7213	140	20	5.3	457	87.9	Yes
21	Jul 06	10:58	51.9690	128.7270	156	19	6.1	457	80.7	Yes
22	Jul 06	11:47	51.9765	128.6638	156	19	5.5	476	557.2	Yes
23	Jul 06	13:00	51.9638	128.5732	154	19	5.7	457	194.7	Yes
24	Jul 06	14:42	52.0072	128.7173	168	19	6.1	503	90.2	Yes
25	Jul 06	15:34	52.0245	128.6978	167	20	5.7	503	438.1	Yes
26	Jul 06	16:39	52.0247	128.7592	179	22	5.5	549	109.6	Yes
27	Jul 06	17:48	52.0577	128.7382	180	20	5.7	549	44.5	Yes
28	Jul 06	18:10	52.0802	128.8303	181	19	6.1	549	42.2	Yes
29	Jul 06	19:52	52.1140	128.8413	196	19	6.1	594	36.1	Yes
30	Jul 06	20:51	52.1687	128.7710	229	19	5.3	640	61.3	Yes
31	Jul 07	05:49	52.2460	128.9503		11	5.1	457	40.5	No
32	Jul 07	06:26	52.2382	128.9387	122	15	5.1	402	64.8	Yes
33	Jul 07	07:27	52.2393	129.0107	179	19	5.3	540	41.8	Yes
34	Jul 07	09:11	52.3255	129.0692	159	17	5.5	457	51.4	Yes
35	Jul 07	11:01	52.4022	129.0787	120	19	6.1	366	455.9	Yes
36	Jul 07	12:23	52.3988	129.0715	123	19	6.3	366	350.8	Yes
37	Jul 07	15:48	52.4650	129.1845	140	19	5.0	384	210.7	Yes
38	Jul 07	17:15	52.3428	129.1927	138	19	5.7	457	67.8	Yes
39	Jul 07	18:00	52.3293	129.1823	145	20	6.1	457	45.5	Yes
40	Jul 07	18:49	52.3227	129.1497	140	19	6.6	457	64.9	Yes
41	Jul 07	19:54	52.2477	129.1285	167	20	6.1	512	123.0	Yes
42	Jul 08	05:40	51.7800	128.6755	74	20	5.5	293	121.9	Yes
43	Jul 08	06:27	51.7672	128.6263	99	19	5.5	366	187.0	Yes
44	Jul 08	07:35	51.7315	128.5478	150	20	6.3	439	325.8	Yes
45	Jul 08	08:28	51.6775	128.5085	141	20	6.6	439	186.9	Yes
46	Jul 08	09:42	51.6780	128.5868	101	20	5.5	366	118.4	Yes
47	Jul 08	10:44	51.6365	128.5323	139	20		457	781.9	Yes
48	Jul 08	11:40	51.6085	128.4628	155	19	5.7	503	522.2	Yes
49	Jul 08	12:32	51.5845	128.4223	167	20	5.7		141.8	Yes
50	Jul 08	13:58	51.5505	128.5518	166	20	5.1	503	242.8	Yes

Appendix A continued.

Tow	Date	Time	Latitude	Longitude	Depth (m)	Duration (min)	Speed (km/h)	Warp (m)	Catch (kg)	Usable?
51	Jul 08	15:44	51.5158	128.3720	171	19	5.7	549	174.3	Yes
52	Jul 08	16:35	51.5347	128.3445	165	20	5.7	549	233.9	Yes
53	Jul 08	18:03	51.4240	128.3892	153	19	6.3	439	254.6	Yes
54	Jul 08	18:55	51.3720	128.4037	141	19	6.6	402	619.5	Yes
55	Jul 08	20:24	51.3525	128.5552	181	19	5.9	549	385.1	Yes
56	Jul 09	05:53	51.4062	128.5833	207	19	5.7	613	200.1	Yes
57	Jul 09	07:04	51.3507	128.5493	175	21	6.1	549	1125.8	Yes
58	Jul 09	08:59	51.3143	128.4000	112	15	5.5	366	126.1	Yes
59	Jul 09	10:21	51.2630	128.4182	121	4	6.1	384	21.2	No
60	Jul 09	10:55	51.2662	128.4195	119	16		366	65.9	Yes
61	Jul 09	12:06	51.2585	128.5305	183	19	5.9	549	89.5	Yes
62	Jul 09	13:46	51.1840	128.6447	163	20	5.9	503	407.6	Yes
63	Jul 09	15:38	51.0780	128.4165	149	20	6.4	476	202.3	Yes
64	Jul 09	17:16	51.1168	128.2797	175	20	5.7	512	292.1	Yes
65	Jul 09	18:11	51.1167	128.2085	157	19	7.2	494	530.2	Yes
66	Jul 09	19:22	51.0352	128.2165	152	20	6.1	457	947.7	Yes
67	Jul 09	20:18	51.0208	128.2222	132	20	6.1	393	290.1	Yes
68	Jul 11	06:02	51.7628	128.7905	59	21	7.0	293	19.5	Yes
69	Jul 11	07:09	51.7110	128.8205	64	21	6.8	274	86.3	Yes
70	Jul 11	08:25	51.6777	128.9870	64	22	5.3	274	67.2	Yes
71	Jul 11	09:26	51.7393	129.0097	79	4	3.3	320	19.5	No
72	Jul 11	10:19	51.7463	128.9972	75	13	5.9	320	36.3	No
73	Jul 11	12:20	51.9585	128.8698	87	21	5.7	320	60.4	Yes
74	Jul 11	13:10	51.9903	128.9032	169	23	6.3	503	487.2	Yes
75	Jul 11	14:24	52.0640	129.0002	170	19	5.0	503	28.7	Yes
76	Jul 11	15:57	52.1687	129.0247	133	8	5.0	384	28.3	No
77	Jul 11	16:33	52.1687	129.0440	137	6	2.4	384	4.8	No
78	Jul 11	17:39	52.2208	129.0478	165	16	5.7	476	63.8	Yes
79	Jul 11	19:12	52.2533	129.2595	173	20	6.1	512	20.1	Yes
80	Jul 11	20:00	52.2948	129.2818	150	19	6.3	503	144.9	Yes
81	Jul 12	07:20	52.5783	129.3070	101	20	6.4	348	975.1	Yes
82	Jul 12	08:29	52.6335	129.3662	120	20	5.0	366	737.6	Yes
83	Jul 12	11:06	52.5957	129.6065	172	20	5.5	508	82.0	Yes
84	Jul 12	12:17	52.5560	129.5723	125	19	6.3	366	529.4	Yes
85	Jul 12	13:03	52.5315	129.6127	144	16	5.5	439	87.7	Yes
86	Jul 12	16:07	52.5735	129.7450	146	19	5.9	439	160.7	Yes
87	Jul 12	17:40	52.5003	129.9270	241	22	5.3	733	279.1	Yes
88	Jul 12	18:44	52.5210	129.9457	249	20	5.5	732	117.6	Yes
89	Jul 12	19:53	52.5770	129.9652	263	21	5.4	732	196.9	Yes
90	Jul 13	05:53	52.6143	129.9340	258	23	5.7	777	95.4	Yes
91	Jul 13	07:08	52.6280	130.0312	267	21	5.9	777	712.8	Yes
92	Jul 13	08:12	52.6593	130.0438	263	22	5.0	777	63.6	Yes
93	Jul 13	09:26	52.6682	130.1192	232	21	5.8	686	196.9	Yes
94	Jul 13	11:17	52.6370	130.2657	242	19	5.2	686	124.1	Yes
95	Jul 13	12:37	52.5537	130.1977	276	17	5.0		179.5	Yes
96	Jul 13	13:38	52.5410	130.1845	296	20	6.1	777	233.5	Yes
97	Jul 13	14:43	52.5180	130.1598	297	21	5.9	777	239.7	Yes
98	Jul 13	16:19	52.4420	130.0633	275	19	6.3	732	63.1	Yes
99	Jul 13	17:14	52.4460	130.0505	270	21	5.1	732	124.4	Yes
100	Jul 13	18:13	52.4393	130.0298	266	19	5.7	732	129.0	Yes

Appendix A continued.

Tow	Date	Time	Latitude	Longitude	Depth (m)	Duration (min)	Speed (km/h)	Warp (m)	Catch (kg)	Usable?
101	Jul 13	19:15	52.4115	130.0440	276	19	5.3	777	64.2	Yes
102	Jul 13	20:33	52.3222	130.0837	270	23	5.1	777	60.8	Yes
103	Jul 14	05:59	52.2707	130.0260	141	20	5.6	402	26.0	Yes
104	Jul 14	07:03	52.2270	129.9773	137	18	5.1	402	20.2	Yes
105	Jul 14	08:12	52.2528	129.8728	128	20	6.3	439	30.3	Yes
106	Jul 14	09:15	52.3422	129.8690	189	20	6.3	549	553.1	Yes
107	Jul 14	10:24	52.3755	129.7757	219	20	6.3	585	148.9	Yes
108	Jul 14	11:37	52.2848	129.7577	205	20	6.1	549	214.5	Yes
109	Jul 14	12:30	52.2488	129.7627	202	18	6.1	549	143.3	Yes
110	Jul 14	13:32	52.2145	129.6845	216	21	6.3	594	50.2	Yes
111	Jul 14	14:29	52.1935	129.6220	221	21	6.3	594	92.3	Yes
112	Jul 14	15:27	52.1217	129.5880	221	20	6.1	622	85.6	Yes
113	Jul 14	16:51	52.0160	129.6690	192	21	6.1	558	110.7	Yes
114	Jul 14	18:02	52.0040	129.7538	114	20	5.9	393	43.9	Yes
115	Jul 14	18:50	52.0392	129.7737	114	20	6.3	369	36.9	Yes
116	Jul 14	19:40	52.0765	129.7717	106	20	5.9	357	34.5	Yes
117	Jul 14	20:28	52.1130	129.7992	163	19	6.1	503	44.2	Yes
118	Jul 15	06:05	52.2828	129.4753	185	21	5.9	549	50.7	Yes
119	Jul 15	06:58	52.2877	129.4475	182	15			70.7	No
120	Jul 15	07:40	52.2678	129.4400	176	16			186.5	Yes
121	Jul 15	08:47	52.3058	129.3965	147	20	6.1	439	77.3	Yes
122	Jul 15	10:43	52.1817	129.1637	166	21	5.9	503	87.7	Yes
123	Jul 15	11:52	52.1088	129.2097	162	20	5.0	503	36.9	Yes
124	Jul 15	13:08	52.0890	129.3413	177	20	5.5	503	737.8	Yes
125	Jul 15	14:14	52.0700	129.2748	176	20	5.9	508	171.1	Yes
126	Jul 15	15:16	52.0045	129.2182	178	19	6.1	503	37.1	Yes
127	Jul 15	16:07	51.9942	129.1562	172	21	5.5	521	221.9	Yes
128	Jul 15	17:21	51.9490	129.1873	184	19	6.1	512	344.7	Yes
129	Jul 15	18:42	51.8552	129.1647	120	20	5.9	366	125.4	Yes
130	Jul 15	20:32	51.7098	129.3765	71	21	5.9	320	157.5	Yes
131	Jul 16	06:11	51.4597	129.3632	85	20	5.3	366	358.7	Yes
132	Jul 16	07:05	51.4353	129.2983	91	19	4.8	366	299.8	Yes
133	Jul 16	08:20	51.4015	129.3020	115	21	5.3	402	471.8	Yes
134	Jul 16	09:14	51.4145	129.2183	101	19	6.4	366	256.1	Yes
135	Jul 16	10:30	51.4015	129.0428	191	19	6.1	549	404.5	Yes
136	Jul 16	11:45	51.3710	128.9805	224	20	5.5	640	307.2	Yes
137	Jul 16	13:30	51.2998	129.1565	248	21	5.9	777	168.9	Yes
138	Jul 16	15:06	51.2858	128.9842	234	20	5.5	686	511.6	Yes
139	Jul 16	16:13	51.2608	128.9558	213	19	6.4	594	647.1	Yes
140	Jul 16	17:15	51.2453	128.9897	203	20	6.4	594	485.3	Yes
141	Jul 16	18:25	51.1958	128.9250	134	20	5.7	384	30.4	Yes
142	Jul 16	19:32	51.1372	128.8807	104	20	7.2	366	979.6	Yes
143	Jul 16	20:49	51.0827	128.8088	62	17	5.9	320	71.4	Yes
144	Jul 19	06:10	51.6458	129.2973	50	19	6.1	274	295.6	Yes
145	Jul 19	06:49	51.6575	129.2652	56	20	6.8	274	380.4	Yes
146	Jul 19	09:55	51.5692	129.5805	109	6	1.1			No
147	Jul 19	12:31	51.3843	129.4387	151	19	6.3	439	617.4	Yes
148	Jul 19	13:25	51.3938	129.4855	148	15	5.9	439	1813.8	Yes
149	Jul 19	14:35	51.3765	129.5012	156	17	6.3	476	277.2	No
150	Jul 19	15:57	51.3473	129.5017	191	19	6.1	549	884.5	Yes

Appendix A continued.

Tow	Date	Time	Latitude	Longitude	Depth (m)	Duration (min)	Speed (km/h)	Warp (m)	Catch (kg)	Usable?
151	Jul 19	17:01	51.3472	129.5275	185	20	5.9	549	766.4	Yes
152	Jul 19	18:40	51.4132	129.4780	144	5	6.8	412	88.0	No
153	Jul 19	20:32	51.6402	129.4888	80	18	5.9	320	101.2	Yes
154	Jul 20	06:04	51.8942	129.4775	235	19	5.3	640	189.9	Yes
155	Jul 20	07:34	51.8470	129.6230	270	20	6.1	777	191.0	Yes
156	Jul 20	08:42	51.8523	129.7158	269	22	5.7	777	301.9	Yes
157	Jul 20	09:49	51.8668	129.7747	190	19	6.6	558	61.7	Yes
158	Jul 20	11:02	51.8000	129.9175	226	18	5.7	594	72.3	Yes
159	Jul 20	12:21	51.7477	129.8408	339	20	5.0	914	188.9	Yes
160	Jul 20	13:48	51.7918	129.7287	312	19	6.4	823	221.8	Yes
161	Jul 20	15:21	51.7347	129.7162	292	19	5.7	823	168.5	Yes
162	Jul 20	17:10	51.6612	129.6435	136	19	6.3	384	698.3	Yes
163	Jul 20	18:50	51.6025	129.8125	197	10	6.3	549	437.9	No
164	Jul 20	20:05	51.6503	129.8865	323	19	6.1	869	221.4	Yes
165	Jul 21	06:09	52.1418	130.0558	168	20	5.7	503	132.1	Yes
166	Jul 21	07:09	52.1400	130.0812	184	19	6.1	503	85.9	Yes
167	Jul 21	08:34	52.1427	130.2630	458	20	5.0	1097	83.5	Yes
168	Jul 21	09:59	52.1602	130.2042	342	20	5.5	878	58.1	Yes
169	Jul 21	11:04	52.2170	130.1515	307	19	6.1	823	72.5	Yes
170	Jul 21	12:04	52.2713	130.1140	295	19	5.9	832	40.4	Yes
171	Jul 21	13:20	52.3398	130.1683	444	22	5.9	1189	189.0	Yes
172	Jul 21	14:50	52.3917	130.1355	334	20	5.1	878	150.6	Yes
173	Jul 21	17:40	52.4097	130.3873	263	21	5.3	713	353.1	Yes
174	Jul 21	18:51	52.4297	130.4110	231	19	6.4	686	217.5	Yes
175	Jul 21	19:59	52.4512	130.3752	255	19	6.4	686	195.6	Yes
176	Jul 22	06:18	52.6573	130.5228	142	19	5.7	439	40.9	Yes
177	Jul 22	07:17	52.6403	130.4692	152	19	5.7	439	471.2	Yes
178	Jul 22	08:36	52.5622	130.4655	176	20	6.3	503	270.8	Yes
179	Jul 22	09:52	52.5525	130.3275	215	19	6.3	585	319.4	Yes
180	Jul 22	11:30	52.4775	130.4333	207	19	5.9	622	173.6	Yes
181	Jul 22	12:42	52.4935	130.4928	166	21	5.9	549	312.0	Yes
182	Jul 22	13:49	52.5307	130.5225	154	19	6.3	457	353.8	Yes
183	Jul 22	14:57	52.5493	130.5803	145	20	5.9	439	155.9	Yes
184	Jul 22	18:21	52.4017	130.6182	144	20	6.1	439	18.6	Yes
185	Jul 22	19:17	52.3850	130.6433	144	19	5.5	439	114.2	Yes
186	Jul 22	20:09	52.3707	130.6403	147	20	5.5	439	66.4	Yes
187	Jul 23	06:29	51.2788	129.4108	279	22	5.9	823	285.4	Yes
188	Jul 23	07:51	51.2342	129.5625	288	19			469.5	Yes
189	Jul 23	10:32	51.1243	129.6755	376	16	5.9	1006	497.7	Yes
190	Jul 23	12:12	51.1740	129.6307	264	17	5.7	777	1487.7	Yes
191	Jul 23	13:45	51.1710	129.5993	276	15	5.9	732	357.6	Yes
192	Jul 23	14:44	51.1605	129.5253	283	19	5.9	777	147.9	Yes
193	Jul 23	16:31	51.1080	129.5478	302	18	6.3	823	479.7	Yes
194	Jul 23	17:57	51.0715	129.4617	272	21	5.9	777	427.2	Yes
195	Jul 23	18:55	51.1077	129.4135	268	19	6.4	732	415.4	Yes
196	Jul 23	19:55	51.1393	129.3625	273	19	6.3	768	520.4	Yes
197	Jul 25	14:24	50.9040	128.4702	68	18	6.3	320	128.2	Yes
198	Jul 25	15:49	50.9742	128.5197	92	19	5.9	329	140.0	Yes
199	Jul 25	16:59	51.0072	128.5282	90	21	6.8		124.3	Yes
200	Jul 25	17:52	51.0052	128.4345	99	19	6.3	329	229.3	Yes

Appendix A continued.

Tow	Date	Time	Latitude	Longitude	Depth (m)	Duration (min)	Speed (km/h)	Warp (m)	Catch (kg)	Usable?
201	Jul 25	18:44	51.0267	128.3797	104	10	6.1	366	80.5	No
202	Jul 25	20:25	51.0848	128.6210	100	20	6.6	348	550.3	Yes
203	Jul 26	06:29	51.0905	128.7163	62	20	6.6	293	87.7	Yes
204	Jul 26	08:51	51.1460	129.0280	133	19	6.1	384	139.3	Yes
205	Jul 26	11:00	51.0640	129.2093	159	14	5.9	485	699.5	Yes
206	Jul 26	12:07	51.0087	129.2092	149	20	6.4	439	225.1	Yes
207	Jul 26	13:14	50.9778	129.3030	167	19	6.3	476	571.6	Yes
208	Jul 26	14:36	51.0103	129.3950	202	19	5.9	567	457.6	Yes
209	Jul 26	15:31	50.9977	129.4202	207	19	5.5	585	443.6	Yes
210	Jul 26	16:27	51.0113	129.4463	224	19	5.9	631	396.3	Yes
211	Jul 26	17:59	51.0023	129.5572	253	3	5.9	686	14.0	No
212	Jul 27	06:28	52.1403	130.0258	150	19	6.3	439	371.3	Yes
213	Jul 27	07:21	52.1195	129.9693	149	19	6.3	439	94.0	Yes
214	Jul 27	08:06	52.1198	129.9387	147	19	5.9	448	50.8	Yes
215	Jul 27	09:00	52.0680	129.9112	126	19	5.1	384	211.0	Yes
216	Jul 27	09:56	52.0007	129.9102	120	20	5.0	384	75.2	Yes
217	Jul 27	10:51	51.9970	129.9337	129	19	4.8	384	12.6	Yes
218	Jul 27	11:40	51.9433	129.9137	131	19	6.3	384	19.4	Yes
219	Jul 27	12:26	51.9217	129.8752	133	19	5.7	402	41.9	Yes
220	Jul 27	13:55	51.8678	129.9652	153	16	6.4	421	291.2	Yes
221	Jul 27	15:38	51.9037	130.1423	177	16	6.3	494	417.3	Yes
222	Jul 27	17:05	51.9755	130.1163	152	16	5.9	430	94.1	No
223	Jul 27	19:21	51.9987	130.2255	275	20	5.3	750	151.1	Yes
224	Jul 28	06:30	52.6635	130.9423	78	19	6.1	284	236.4	Yes
225	Jul 28	07:38	52.6202	131.0492	97	17	6.1	338	42.2	Yes
226	Jul 28	08:22	52.5920	131.0548	114	20	6.4	366	60.3	Yes
227	Jul 28	10:38	52.5588	130.9745	133	19	4.4	384	311.3	Yes
228	Jul 28	11:43	52.5062	131.0103	155	19	5.1	476	96.2	Yes
229	Jul 28	12:59	52.5597	130.8708	142	19	5.5	439	77.8	Yes
230	Jul 28	13:47	52.5393	130.8265	133	20	5.9	402	153.9	Yes
231	Jul 28	14:59	52.4687	130.8473	106	19	6.3	366	26.0	Yes
232	Jul 28	15:56	52.4545	130.8057	114	19	6.6	348	39.6	Yes
233	Jul 28	17:00	52.3875	130.8993	129	19	5.3	384	121.9	Yes
234	Jul 28	17:54	52.4028	130.9853	124	19	5.9	366	176.3	Yes
235	Jul 28	18:39	52.3647	131.0022	132	20	5.5	393	171.8	Yes
236	Jul 28	19:41	52.3513	130.9143	135	19	5.7	402	1484.6	Yes
237	Jul 28	20:50	52.2885	130.9867	135	7	4.6	384	16.4	No
238	Jul 29	06:25	52.2013	130.9300	192	19	7.0	549	96.1	Yes
239	Jul 29	07:30	52.2285	130.8588	196	19	6.3	549	133.5	Yes
240	Jul 29	08:21	52.2310	130.7717	183	19	6.4	549	135.3	Yes
241	Jul 29	09:50	52.3167	130.6587	155	19	6.4	439	811.0	Yes
242	Jul 29	10:59	52.2988	130.5557	173	19	5.1	503	196.0	Yes
243	Jul 29	12:14	52.2480	130.4608	199	19	5.0	549	245.9	Yes
244	Jul 29	13:24	52.1790	130.3987	373	20	5.5	1006	121.2	Yes
245	Jul 29	14:58	52.0810	130.4565	347	20	5.7	878	270.5	Yes
246	Jul 29	16:26	52.0245	130.5565	303	19	5.9	823	913.0	Yes
247	Jul 29	17:52	52.0615	130.5840	253	20	5.7	640	263.0	Yes
248	Jul 29	18:44	52.0767	130.5978	225	19	6.1	594	348.9	Yes
249	Jul 29	19:53	52.1037	130.6018	212	20	5.5	594	186.0	Yes
250	Jul 29	20:41	52.1267	130.6325	202	19	6.1	576	63.9	Yes

Appendix A continued.

Tow	Date	Time	Latitude	Longitude	Depth (m)	Duration (min)	Speed (km/h)	Warp (m)	Catch (kg)	Usable?
251	Jul 30	06:28	52.1460	130.6175	195	20	6.8	549	60.1	Yes
252	Jul 30	07:38	52.0630	130.6485	245	19	5.3	622	237.4	Yes
253	Jul 30	08:55	52.0905	130.7802	258	19	6.1	686	61.4	Yes
254	Jul 30	09:47	52.0447	130.7387	303	20	6.3	823	333.3	Yes
255	Jul 30	11:19	51.9558	130.6235	245	20	4.6	732	207.2	Yes
256	Jul 30	12:31	51.8908	130.5190	361	20	6.4	914	135.8	Yes
257	Jul 30	13:46	51.8487	130.5368	271	19	5.7	732	1500.0	Yes
258	Jul 30	15:55	51.7350	130.7642	281	19	5.9	796	719.8	Yes
259	Jul 30	18:50	51.9195	130.7978	246	19	6.3	649	180.8	Yes
260	Jul 30	19:38	51.9153	130.7808	267	20	5.5	732	138.5	Yes
261	31-Jul	6:33	51.7082	130.3358	245	15	6.3	704	861.0	Yes
262	31-Jul	7:38	51.7048	130.2987	237	6	6.3	677	366.8	No
263	31-Jul	8:49	51.6877	130.1460	304	23	7.2	914	183.6	Yes
264	31-Jul	9:53	51.6712	130.1040	340	13	5.5	914	204.4	No
265	31-Jul	10:55	51.6730	130.0917	344	19	5.1	914	378.7	Yes
266	31-Jul	12:02	51.6437	130.0230	355	19	6.3	914	163.0	Yes
267	31-Jul	13:44	51.6390	130.1435	423	12	5.3	1024	228.4	No
268	31-Jul	14:52	51.6323	130.1622	533	20	5.1	1280	307.5	Yes
269	31-Jul	17:27	51.5418	130.0848	316	16	5.9	777	723.6	Yes
270	31-Jul	18:34	51.5132	130.1208	312	20	6.4	823	1288.8	Yes
271	31-Jul	20:28	51.4178	130.0622	383	19	6.1	960	363.3	Yes
272	1-Aug	6:24	51.4195	129.9597	268	10	5.7	732	782.7	No
273	1-Aug	8:10	51.3547	129.8432	232	9	6.3	604	279.0	No
274	1-Aug	9:15	51.3165	129.7320	234	16	5.1	640	555.3	Yes
275	1-Aug	14:22	50.9598	129.1268	110	14	6.6	366	41.3	Yes
276	1-Aug	15:28	50.9563	128.9557	76	19	7.0	284	18.6	Yes
277	1-Aug	16:23	50.9007	128.9227	81	15	6.6	293	26.0	Yes

APPENDIX B: CATCH BY TOW

Species	1	2	3	4	5	6	7	8	9	10
Aleutian skate	-	-	-	-	-	-	-	-	-	-
Arrowtooth flounder	98.90	77.00	138.25	27.60	201.02	130.56	61.70	46.84	23.84	-
Aurora rockfish	-	-	-	-	-	-	-	-	-	-
Big skate	-	-	-	-	-	-	-	-	-	-
Bigmouth sculpin	-	-	-	-	-	-	-	-	-	-
Blackbelly eelpout	-	-	0.27	0.04	11.42	4.49	11.48	0.30	0.50	-
Bocaccio	-	-	-	-	-	-	-	-	-	-
Canary rockfish	-	-	-	-	-	-	-	-	-	-
Copper rockfish	-	-	-	-	-	-	-	-	-	-
Curlfin sole	-	-	-	-	-	-	-	-	-	-
Darkblotched rockfish	-	4.24	-	-	-	-	-	-	-	-
Dover sole	81.46	5.14	68.55	0.43	77.02	36.39	50.28	29.44	-	0.02
English sole	-	-	-	-	0.38	0.61	-	-	3.90	-
Eulachon	0.40	0.03	-	0.01	1.98	0.75	1.93	0.06	0.45	-
Flathead sole	1.94	0.68	2.40	0.38	64.68	31.95	42.32	22.82	15.97	1.04
Greenstriped rockfish	-	1.16	-	1.68	-	-	-	-	-	-
Harlequin rockfish	-	-	-	-	-	-	-	-	-	-
Lingcod	-	-	-	-	-	-	-	-	9.71	13.83
Longnose skate	7.84	3.46	1.20	-	40.00	2.23	4.42	-	-	-
Longspine thornyhead	-	-	-	-	-	-	-	-	-	-
Pacific cod	-	9.69	3.53	-	-	6.55	-	-	5.57	-
Pacific hake	0.32	58.10	3.17	5.56	25.58	22.82	24.86	70.42	0.05	-
Pacific halibut	-	-	-	-	4.70	-	-	-	10.60	3.08
Pacific ocean perch	-	0.76	0.46	-	-	-	-	0.28	0.19	-
Pacific sanddab	-	-	-	-	-	-	-	-	-	0.68
Petrale sole	-	-	-	-	2.26	-	1.34	-	-	1.32
Quillback rockfish	-	-	-	-	-	-	-	-	1.92	7.13
Ragfish	-	-	-	-	-	-	-	-	-	-
Redbanded rockfish	-	0.84	-	-	-	-	-	-	-	-
Redstripe rockfish	-	4.94	1.76	1.47	-	-	-	-	0.41	2.38
Rex sole	64.96	4.22	57.75	1.18	16.20	3.71	22.22	8.44	2.03	0.04
Rosethorn rockfish	-	-	-	-	-	-	-	-	-	-
Rougheye rockfish	-	1.18	0.52	-	2.36	0.07	0.52	2.64	-	-
Sablefish	73.92	45.78	32.94	-	-	-	1.28	1.48	-	-
Sandpaper skate	-	-	-	-	-	-	-	-	-	-
Sharpchin rockfish	-	-	0.22	0.20	-	-	-	-	-	-
Shortraker rockfish	-	-	-	-	-	-	-	-	-	-
Shortspine thornyhead	-	-	-	-	-	-	-	-	-	-
Silvergray rockfish	-	3.30	-	-	-	-	-	-	1.37	3.50
Slender sole	3.50	0.32	1.36	-	5.92	2.76	8.60	1.22	0.14	-
Southern rock sole	-	-	-	-	-	-	-	-	-	0.45
Spiny dogfish	15.08	12.34	15.29	2.24	65.52	5.67	13.12	3.12	-	-
Splitnose rockfish	-	-	-	-	-	-	-	-	-	-
Spotted ratfish	75.46	14.86	101.03	3.36	252.04	12.82	114.03	23.50	4.39	8.04
Walleye pollock	1.23	42.21	50.07	27.32	10.02	13.61	38.54	112.86	52.55	-
Widow rockfish	-	-	-	-	-	-	-	-	-	-
Wolf eel	-	-	-	-	-	-	-	-	-	-
Yelloweye rockfish	-	8.56	-	-	-	-	-	-	-	3.82
Yellowmouth rockfish	-	-	-	-	-	-	-	-	-	-
Yellowtail rockfish	-	-	-	-	-	-	-	-	-	-
Other	6.42	2.37	3.86	1.26	1.25	0.03	5.94	4.42	2.80	0.47
Total	431.43	301.18	482.63	72.73	782.35	275.02	402.58	327.84	136.39	45.80

Appendix B continued.

Species	11	12	13	14	15	16	17	18	19	20
Aleutian skate	-	-	-	-	-	-	-	-	-	-
Arrowtooth flounder	35.06	234.64	64.62	150.06	107.07	25.60	12.48	57.40	49.98	39.15
Aurora rockfish	-	-	-	-	-	-	-	-	-	-
Big skate	-	-	-	-	-	-	-	-	-	-
Bigmouth sculpin	-	-	-	-	-	-	-	-	-	-
Blackbelly eelpout	0.02	0.66	1.13	2.96	2.24	3.80	2.36	0.16	0.04	0.12
Bocaccio	-	-	-	-	-	-	-	4.94	-	-
Canary rockfish	-	-	-	-	-	-	-	-	-	-
Copper rockfish	-	-	-	-	-	-	-	-	-	-
Curlfin sole	-	-	-	-	-	-	-	-	-	-
Darkblotched rockfish	-	-	-	0.01	0.29	-	-	-	-	-
Dover sole	-	26.30	4.04	5.13	6.23	1.92	2.14	-	2.38	0.50
English sole	15.09	-	0.24	-	-	5.02	3.43	12.27	14.76	7.70
Eulachon	-	-	1.54	0.12	0.30	-	0.15	-	-	-
Flathead sole	0.56	2.46	0.82	7.78	4.50	6.20	6.13	4.08	10.62	11.88
Greenstriped rockfish	-	-	-	-	-	2.22	0.36	0.22	-	-
Harlequin rockfish	-	-	-	-	-	-	-	-	-	-
Lingcod	1.41	-	-	-	-	1.32	4.29	8.12	1.60	-
Longnose skate	-	15.10	2.47	-	4.10	8.53	5.33	12.02	-	-
Longspine thornyhead	-	-	-	-	-	-	-	-	-	-
Pacific cod	-	-	-	-	-	3.38	3.73	8.42	-	0.33
Pacific hake	0.07	7.74	7.01	9.52	6.70	13.34	34.27	4.43	-	-
Pacific halibut	-	-	-	3.66	-	-	4.43	6.22	3.52	-
Pacific ocean perch	-	-	-	1.45	-	-	0.20	-	-	-
Pacific sanddab	2.10	-	-	-	-	-	-	0.19	1.24	-
Petrale sole	-	-	1.03	0.90	-	-	0.81	0.34	-	-
Quillback rockfish	2.60	-	-	-	-	-	-	-	-	-
Ragfish	-	-	-	-	-	-	-	-	-	-
Redbanded rockfish	-	3.99	-	4.02	4.27	0.72	-	0.94	-	-
Redstripe rockfish	-	-	-	-	-	-	-	0.72	-	-
Rex sole	5.83	2.14	0.84	0.20	0.87	5.28	3.67	2.69	5.88	4.86
Rosethorn rockfish	-	-	-	-	-	-	-	-	-	-
Rougheye rockfish	-	-	-	0.43	0.24	-	-	-	-	-
Sablefish	1.28	1.48	0.93	2.44	-	3.14	-	-	1.16	1.33
Sandpaper skate	-	5.92	-	-	-	-	-	-	-	-
Sharpchin rockfish	-	-	-	-	-	-	-	-	0.17	0.17
Shortraker rockfish	-	-	-	-	-	-	-	-	-	-
Shortspine thornyhead	-	-	-	-	-	-	-	-	-	-
Silvergray rockfish	2.22	-	-	-	-	0.50	3.12	20.80	13.35	2.48
Slender sole	0.02	0.04	0.23	0.24	0.21	0.34	0.11	0.27	-	-
Southern rock sole	-	-	-	-	-	-	-	-	-	-
Spiny dogfish	1.28	0.90	0.61	-	-	2.30	0.65	5.24	9.41	8.78
Splitnose rockfish	-	-	-	-	-	-	-	-	-	-
Spotted ratfish	6.30	4.20	7.18	7.86	1.55	5.68	1.96	1.45	2.06	3.55
Walleye pollock	1.28	-	0.01	-	-	3.06	1.59	6.09	6.91	6.48
Widow rockfish	-	-	-	-	-	-	-	-	-	-
Wolf eel	-	-	-	-	-	-	-	-	-	-
Yelloweye rockfish	-	-	-	-	-	8.07	7.35	-	-	-
Yellowmouth rockfish	-	-	-	-	-	-	-	-	-	-
Yellowtail rockfish	-	3.61	-	-	-	7.96	-	-	-	-
Other	3.54	2.24	2.56	1.74	4.75	2.91	1.24	2.91	0.25	0.59
Total	78.66	311.42	95.26	198.52	143.32	111.29	99.80	159.92	123.33	87.92

Appendix B continued.

Species	21	22	23	24	25	26	27	28	29	30
Aleutian skate	-	-	-	-	-	-	-	-	-	-
Arrowtooth flounder	15.00	36.10	148.15	21.86	24.98	31.06	14.86	11.33	10.12	12.49
Aurora rockfish	-	-	-	-	-	-	-	-	-	-
Big skate	-	-	-	-	-	-	-	-	-	-
Bigmouth sculpin	-	-	-	-	-	-	-	-	-	-
Blackbelly eelpout	-	0.14	-	0.29	0.12	0.41	0.04	0.01	0.30	0.16
Bocaccio	-	-	-	-	-	-	-	-	-	-
Canary rockfish	-	-	-	-	-	-	-	-	-	-
Copper rockfish	-	-	-	-	-	-	-	-	-	-
Curlfin sole	-	-	-	-	-	-	-	-	-	-
Darkblotched rockfish	-	0.74	0.18	-	0.20	2.18	1.27	-	-	1.35
Dover sole	0.86	5.90	0.42	1.17	0.90	5.16	2.76	-	1.37	-
English sole	-	-	-	-	-	-	-	-	-	-
Eulachon	-	-	-	1.00	-	-	0.01	-	0.21	0.64
Flathead sole	4.17	5.54	6.42	3.76	4.38	9.00	4.48	2.01	0.16	4.80
Greenstriped rockfish	-	-	-	-	0.82	-	-	-	-	-
Harlequin rockfish	-	-	-	-	-	-	-	-	-	-
Lingcod	-	-	-	-	6.92	-	-	-	-	-
Longnose skate	-	-	6.44	-	-	-	-	11.55	-	11.29
Longspine thornyhead	-	-	-	-	-	-	-	-	-	-
Pacific cod	-	-	-	-	-	-	-	-	-	-
Pacific hake	40.31	614.63	5.46	13.31	7.00	-	5.93	-	9.79	3.23
Pacific halibut	-	-	-	-	-	-	-	-	-	-
Pacific ocean perch	-	-	-	-	0.88	0.64	5.20	7.44	0.53	3.14
Pacific sanddab	-	-	-	-	-	-	-	-	-	-
Petrale sole	-	1.02	-	-	-	-	-	-	-	-
Quillback rockfish	-	-	-	-	-	-	-	-	-	-
Ragfish	-	-	-	-	-	-	-	-	-	-
Redbanded rockfish	-	2.50	-	1.43	305.50	27.12	-	-	0.65	-
Redstripe rockfish	-	-	-	0.10	-	-	-	-	1.98	-
Rex sole	1.18	3.54	1.48	2.47	-	2.88	-	-	-	4.24
Rosethorn rockfish	-	-	-	-	-	-	-	-	-	-
Rougheye rockfish	-	-	-	-	-	-	1.16	-	1.10	0.88
Sablefish	1.08	-	-	-	-	-	-	-	-	6.04
Sandpaper skate	-	-	-	-	-	-	-	-	-	1.83
Sharpchin rockfish	-	-	-	0.07	0.40	-	-	-	-	-
Shortraker rockfish	-	-	-	-	-	-	-	-	-	-
Shortspine thornyhead	-	-	-	-	-	-	-	-	-	0.90
Silvergray rockfish	14.27	4.44	1.86	15.08	70.23	9.72	4.10	4.60	2.14	-
Slender sole	-	-	-	0.12	0.36	0.19	0.08	-	-	0.36
Southern rock sole	-	-	-	-	-	-	-	-	-	-
Spiny dogfish	-	1.54	-	7.74	2.40	-	-	1.84	-	1.31
Splitnose rockfish	-	-	-	-	-	-	-	-	-	-
Spotted ratfish	3.24	6.30	4.42	8.24	10.54	11.16	3.28	2.42	-	2.00
Walleye pollock	0.46	0.76	0.38	0.14	0.22	-	-	-	-	2.54
Widow rockfish	-	-	-	-	-	-	-	-	-	-
Wolf eel	-	-	-	-	-	-	-	-	-	-
Yelloweye rockfish	-	-	-	-	-	-	-	-	-	-
Yellowmouth rockfish	-	-	-	-	-	-	-	-	-	-
Yellowtail rockfish	-	5.00	19.16	12.25	-	-	-	-	1.65	-
Other	0.15	0.54	0.32	1.12	2.22	10.11	1.36	0.96	6.13	4.05
Total	80.72	688.69	194.69	90.15	438.07	109.63	44.53	42.16	36.13	61.25

Appendix B continued.

Species	31	32	33	34	35	36	37	38	39	40
Aleutian skate	-	-	-	-	-	-	-	-	-	-
Arrowtooth flounder	0.79	12.32	16.22	8.78	391.14	296.28	81.76	10.72	2.79	5.31
Aurora rockfish	-	-	-	-	-	-	-	-	-	-
Big skate	-	-	-	-	-	-	-	-	-	-
Bigmouth sculpin	-	-	-	-	-	-	-	-	-	-
Blackbelly eelpout	-	-	-	0.20	3.00	-	-	-	-	-
Bocaccio	3.95	-	-	-	-	-	-	-	-	-
Canary rockfish	-	5.82	-	-	2.74	-	-	-	-	-
Copper rockfish	-	-	-	-	-	-	-	-	-	-
Curlfin sole	-	-	-	-	-	-	-	-	-	-
Darkblotched rockfish	-	-	-	-	5.00	-	-	-	-	-
Dover sole	-	-	-	-	-	0.56	1.52	-	-	-
English sole	-	-	-	-	0.74	-	-	-	-	-
Eulachon	-	-	0.25	0.14	-	-	-	-	-	-
Flathead sole	0.39	-	-	-	2.39	-	-	-	-	-
Greenstriped rockfish	-	-	-	-	-	0.05	-	2.59	1.50	0.81
Harlequin rockfish	-	-	-	-	-	-	-	-	-	-
Lingcod	-	5.39	-	-	5.38	6.19	-	-	-	6.49
Longnose skate	-	-	-	-	7.06	-	-	-	-	-
Longspine thornyhead	-	-	-	-	-	-	-	-	-	-
Pacific cod	0.28	1.68	0.53	0.87	3.97	13.90	22.56	2.52	7.38	7.56
Pacific hake	1.16	-	-	-	-	-	-	-	-	-
Pacific halibut	-	-	-	-	-	-	-	-	-	12.27
Pacific ocean perch	3.01	-	0.45	0.81	0.03	-	-	0.27	0.36	0.57
Pacific sanddab	-	-	-	-	-	-	-	-	-	-
Petrale sole	-	-	-	-	3.20	6.25	2.09	0.49	-	2.74
Quillback rockfish	-	-	-	-	2.69	-	-	-	-	-
Ragfish	-	-	-	-	-	-	-	-	-	-
Redbanded rockfish	5.08	-	4.20	11.60	-	-	-	3.00	3.38	4.08
Redstripe rockfish	0.22	12.36	0.94	0.38	0.11	-	-	-	-	3.40
Rex sole	0.54	0.32	0.74	0.80	5.26	3.00	9.20	2.27	1.43	2.10
Rosethorn rockfish	-	-	-	-	-	-	-	-	-	-
Rougheye rockfish	-	-	-	-	-	-	-	-	-	-
Sablefish	-	-	-	1.07	-	-	-	-	-	-
Sandpaper skate	-	-	-	-	-	-	-	-	-	-
Sharpchin rockfish	-	0.31	-	-	-	-	-	-	0.09	-
Shortraker rockfish	-	-	-	-	-	-	-	-	-	-
Shortspine thornyhead	-	-	-	-	-	-	-	-	-	-
Silvergray rockfish	20.27	13.25	10.83	15.55	11.41	12.50	0.70	29.18	19.59	12.03
Slender sole	-	-	0.08	0.10	-	-	0.28	0.14	-	-
Southern rock sole	-	-	-	-	-	-	-	-	-	-
Spiny dogfish	-	-	-	2.19	7.22	1.26	2.62	3.46	-	-
Splitnose rockfish	-	-	-	-	-	-	-	-	-	-
Spotted ratfish	-	2.22	3.26	1.76	2.34	5.32	69.99	1.69	0.35	0.65
Walleye pollock	-	-	-	1.30	1.43	-	0.84	0.70	0.34	0.47
Widow rockfish	-	-	-	-	-	-	-	-	-	-
Wolf eel	-	-	-	-	-	3.42	-	-	-	-
Yelloweye rockfish	4.26	8.90	-	-	-	-	-	8.82	5.12	2.62
Yellowmouth rockfish	-	0.83	0.30	-	-	-	-	-	-	0.83
Yellowtail rockfish	-	-	-	2.03	-	-	-	-	-	-
Other	0.59	1.43	4.00	3.82	0.76	2.11	10.38	1.93	3.15	2.99
Total	40.54	64.83	41.80	51.40	455.87	350.84	201.94	67.78	45.48	64.92

Appendix B continued.

Species	41	42	43	44	45	46	47	48	49	50
Aleutian skate	-	-	-	-	-	-	-	-	-	-
Arrowtooth flounder	9.60	-	126.89	43.26	97.26	19.18	76.60	63.00	30.54	108.70
Aurora rockfish	-	-	-	-	-	-	-	-	-	-
Big skate	-	-	-	-	-	-	-	-	-	-
Bigmouth sculpin	-	-	-	-	-	-	-	-	-	-
Blackbelly eelpout	0.02	-	-	0.41	0.24	-	0.08	1.28	0.74	0.20
Bocaccio	-	-	-	-	-	-	1.24	-	-	-
Canary rockfish	-	-	-	-	-	-	-	-	-	-
Copper rockfish	-	-	-	-	-	-	-	-	-	-
Curlfin sole	-	4.30	-	-	-	-	-	-	-	-
Darkblotched rockfish	-	-	-	-	-	-	-	-	-	-
Dover sole	-	-	3.06	4.36	5.62	-	7.62	11.21	19.82	18.74
English sole	-	-	2.09	10.00	30.82	-	24.82	-	0.22	-
Eulachon	1.14	0.08	-	-	-	-	-	0.44	0.96	-
Flathead sole	-	-	-	9.98	3.86	0.26	6.46	4.50	6.86	1.18
Greenstriped rockfish	0.22	-	-	-	-	-	5.70	-	-	-
Harlequin rockfish	-	-	-	-	-	-	0.14	-	-	-
Lingcod	-	2.88	3.90	-	1.12	11.06	6.46	-	-	-
Longnose skate	-	-	-	-	-	-	1.80	6.09	2.26	15.70
Longspine thornyhead	-	-	-	-	-	-	-	-	-	-
Pacific cod	-	-	-	2.38	-	-	36.75	-	-	-
Pacific hake	-	-	-	48.20	2.58	-	1.48	2.64	1.24	1.40
Pacific halibut	-	71.80	17.88	-	-	66.46	10.32	5.46	-	-
Pacific ocean perch	0.26	-	-	-	0.04	-	-	392.10	9.41	71.12
Pacific sanddab	-	1.66	7.88	0.77	0.18	2.86	0.64	-	-	-
Petrale sole	-	-	6.93	-	0.34	1.05	0.56	-	-	1.20
Quillback rockfish	-	-	-	-	-	-	-	-	-	-
Ragfish	-	-	-	-	-	-	-	-	-	-
Redbanded rockfish	90.14	2.96	-	-	-	-	-	4.98	52.38	10.84
Redstripe rockfish	1.28	-	-	-	-	-	481.89	3.32	-	-
Rex sole	-	-	3.57	3.78	6.05	-	8.02	3.64	1.67	2.38
Rosethorn rockfish	-	-	-	-	-	-	-	-	-	-
Rougheye rockfish	-	-	-	-	-	-	-	-	1.46	-
Sablefish	-	-	-	0.66	0.42	-	0.50	1.51	-	-
Sandpaper skate	-	-	-	-	-	-	-	4.19	-	-
Sharpchin rockfish	-	-	-	-	-	-	0.18	-	-	-
Shortraker rockfish	-	-	-	-	-	-	-	-	-	-
Shortspine thornyhead	-	-	-	-	-	-	-	-	2.47	-
Silvergray rockfish	9.50	-	4.83	18.25	-	4.48	38.62	-	-	1.94
Slender sole	-	-	-	-	0.65	-	0.14	0.32	0.12	0.48
Southern rock sole	-	31.48	6.55	-	-	1.12	-	-	-	-
Spiny dogfish	4.92	2.96	-	6.85	3.53	-	3.82	-	3.20	3.26
Splitnose rockfish	-	-	-	-	-	-	-	0.06	-	-
Spotted ratfish	1.54	3.79	3.38	11.98	26.78	9.14	13.37	5.42	4.24	5.06
Walleye pollock	-	-	-	1.97	0.43	-	1.12	0.06	-	-
Widow rockfish	-	-	-	-	-	-	-	-	-	-
Wolf eel	-	-	-	-	-	-	-	-	-	-
Yelloweye rockfish	1.96	-	-	-	-	-	11.94	-	-	-
Yellowmouth rockfish	-	-	-	-	-	-	-	-	-	-
Yellowtail rockfish	-	-	-	162.03	-	-	29.50	10.28	-	-
Other	2.46	-	0.06	0.90	6.97	2.88	12.13	1.68	4.17	0.56
Total	123.04	121.91	187.02	325.78	186.89	118.49	781.90	522.18	141.76	242.76

Appendix B continued.

Species	51	52	53	54	55	56	57	58	59	60
Aleutian skate	-	-	-	-	-	-	-	-	-	-
Arrowtooth flounder	99.48	148.67	19.29	59.34	66.88	17.38	124.74	16.00	10.24	40.02
Aurora rockfish	-	-	-	-	-	-	-	-	-	-
Big skate	-	-	-	-	-	-	-	-	-	-
Bigmouth sculpin	-	-	-	-	-	-	-	-	-	-
Blackbelly eelpout	0.12	0.56	0.05	-	-	-	-	-	-	-
Bocaccio	-	-	-	-	-	-	4.06	-	-	-
Canary rockfish	-	-	-	6.56	-	-	-	-	-	-
Copper rockfish	-	-	-	-	-	-	-	-	-	-
Curlfin sole	-	-	-	-	-	-	-	-	-	-
Darkblotched rockfish	-	-	-	-	-	0.48	-	-	-	-
Dover sole	13.14	13.88	2.97	6.06	6.96	21.74	7.72	0.42	-	2.50
English sole	-	0.34	-	-	-	-	-	0.44	-	0.40
Eulachon	2.61	2.52	0.37	-	-	0.01	-	-	-	-
Flathead sole	6.67	7.54	1.64	1.06	2.02	1.30	3.26	-	-	0.02
Greenstriped rockfish	-	-	0.55	0.50	-	-	0.98	-	-	0.42
Harlequin rockfish	-	-	-	-	-	-	-	-	-	-
Lingcod	1.57	-	-	5.22	-	-	8.90	-	-	-
Longnose skate	8.75	6.00	3.38	-	-	0.60	8.12	-	-	-
Longspine thornyhead	-	-	-	-	-	-	-	-	-	-
Pacific cod	-	-	-	9.78	2.10	-	3.70	0.48	-	1.05
Pacific hake	5.21	9.50	135.30	38.28	23.44	2.96	4.99	-	-	-
Pacific halibut	-	-	-	-	-	-	-	-	-	-
Pacific ocean perch	15.10	9.73	49.79	13.32	252.12	133.54	896.68	-	-	-
Pacific sanddab	-	-	-	-	-	-	-	-	-	-
Petrale sole	-	-	-	-	0.50	0.70	0.94	-	-	1.93
Quillback rockfish	-	-	-	-	-	-	-	-	-	-
Ragfish	-	-	-	-	-	-	-	-	-	-
Redbanded rockfish	8.64	19.74	2.59	-	10.58	8.22	5.54	-	-	-
Redstripe rockfish	-	-	0.31	296.02	0.94	-	4.96	88.60	2.58	0.80
Rex sole	-	0.56	17.20	11.52	9.30	1.54	8.56	4.64	5.96	11.56
Rosethorn rockfish	-	-	-	-	-	-	-	-	-	0.52
Rougheye rockfish	0.38	-	-	-	-	3.56	-	-	-	-
Sablefish	1.31	4.34	8.22	1.36	2.84	3.66	3.96	-	-	-
Sandpaper skate	-	-	-	-	-	1.12	-	-	-	-
Sharpchin rockfish	-	-	0.13	-	-	-	-	-	-	-
Shortraker rockfish	-	-	-	-	-	-	-	-	-	-
Shortspine thornyhead	2.04	-	-	-	-	0.94	0.52	-	-	-
Silvergray rockfish	-	-	1.20	4.16	-	-	3.00	2.80	-	-
Slender sole	0.29	0.26	0.24	0.52	0.26	0.36	0.54	0.14	-	-
Southern rock sole	-	-	-	-	-	-	-	-	-	-
Spiny dogfish	2.41	-	2.04	-	2.90	-	0.92	1.80	-	-
Splitnose rockfish	-	-	-	-	-	-	-	-	-	-
Spotted ratfish	0.45	2.44	0.41	6.06	0.16	0.50	2.20	3.26	0.24	5.06
Walleye pollock	-	-	0.72	0.76	-	-	1.54	0.24	-	0.08
Widow rockfish	-	-	-	0.60	-	-	-	-	-	-
Wolf eel	-	-	-	-	-	-	-	-	-	-
Yelloweye rockfish	-	-	-	-	-	-	-	-	-	-
Yellowmouth rockfish	-	-	-	-	1.58	-	21.44	-	-	-
Yellowtail rockfish	-	-	5.48	157.12	-	-	-	7.26	1.72	-
Other	6.11	7.78	2.69	1.28	2.54	1.50	8.50	-	0.44	1.57
Total	174.28	233.86	254.57	619.52	385.12	200.11	1125.77	126.08	21.18	65.93

Appendix B continued.

Species	61	62	63	64	65	66	67	68	69	70
Aleutian skate	-	-	-	-	-	-	-	-	-	-
Arrowtooth flounder	11.42	329.80	115.06	83.76	130.42	846.03	148.98	-	0.03	1.82
Aurora rockfish	-	-	-	-	-	-	-	-	-	-
Big skate	-	-	-	-	-	-	-	-	48.50	13.74
Bigmouth sculpin	-	-	-	-	-	-	-	-	-	-
Blackbelly eelpout	-	-	0.08	1.11	1.30	0.16	0.10	-	-	-
Bocaccio	-	-	-	-	-	-	-	-	-	-
Canary rockfish	2.56	1.68	1.58	-	-	-	-	-	-	-
Copper rockfish	-	-	-	-	-	-	-	-	-	-
Curlfin sole	-	-	-	-	-	-	-	0.18	-	0.52
Darkblotched rockfish	-	-	-	-	4.12	-	-	-	-	-
Dover sole	1.88	1.44	6.92	51.44	13.83	15.70	11.40	-	-	-
English sole	-	0.80	0.44	-	-	-	1.40	-	-	-
Eulachon	0.46	-	-	-	-	-	-	-	-	-
Flathead sole	-	6.84	5.48	2.40	2.51	1.74	44.22	-	-	-
Greenstriped rockfish	0.43	-	0.32	1.10	1.32	-	-	-	-	-
Harlequin rockfish	-	-	-	-	-	-	-	-	-	-
Lingcod	-	-	-	-	-	-	-	-	-	-
Longnose skate	-	-	-	4.79	-	-	-	-	-	-
Longspine thornyhead	-	-	-	-	-	-	-	-	-	-
Pacific cod	-	3.66	2.41	3.99	2.51	1.86	-	-	-	-
Pacific hake	2.61	0.36	0.58	1.66	0.03	2.76	1.20	-	-	-
Pacific halibut	-	-	9.58	-	-	-	-	6.01	27.51	4.38
Pacific ocean perch	0.40	-	-	64.80	24.28	8.41	-	-	-	-
Pacific sanddab	-	-	-	-	-	-	-	0.03	1.22	0.40
Petrale sole	-	-	1.38	-	-	1.13	-	0.89	-	1.50
Quillback rockfish	-	-	-	-	-	-	-	-	-	-
Ragfish	-	-	-	-	-	-	-	-	-	-
Redbanded rockfish	2.46	2.66	-	-	-	-	-	-	-	-
Redstripe rockfish	1.84	-	-	1.01	194.36	-	1.71	-	-	-
Rex sole	21.63	28.48	40.46	46.74	58.50	24.40	35.80	-	-	-
Rosethorn rockfish	-	-	-	-	-	-	-	-	-	-
Rougheye rockfish	-	-	-	-	-	-	-	-	-	-
Sablefish	-	-	1.50	6.18	5.20	9.84	4.33	-	-	-
Sandpaper skate	-	-	-	-	-	-	-	-	-	-
Sharpchin rockfish	-	0.16	-	-	1.42	-	-	-	-	-
Shortraker rockfish	-	-	-	-	-	-	-	-	-	-
Shortspine thornyhead	-	-	-	-	-	-	-	-	-	-
Silvergray rockfish	-	2.30	3.50	1.47	5.46	1.90	-	-	-	-
Slender sole	0.98	0.20	0.40	1.32	0.85	0.44	0.78	-	-	-
Southern rock sole	-	-	-	-	-	-	-	4.58	1.46	13.34
Spiny dogfish	-	2.42	2.02	3.42	1.64	-	-	7.38	7.10	24.56
Splitnose rockfish	-	-	-	-	-	-	-	-	-	-
Spotted ratfish	1.16	14.52	8.70	2.90	1.86	1.02	0.84	0.43	0.40	-
Walleye pollock	2.29	-	0.28	7.95	80.70	30.32	34.76	-	-	-
Widow rockfish	-	-	-	-	-	-	-	-	-	-
Wolf eel	-	-	-	-	-	-	-	-	-	-
Yelloweye rockfish	-	-	-	3.36	-	-	-	-	-	-
Yellowmouth rockfish	1.86	-	-	-	-	-	-	-	-	-
Yellowtail rockfish	35.09	3.74	-	-	-	0.74	2.68	-	-	-
Other	2.40	8.56	1.58	2.66	1.80	1.29	1.87	-	0.05	6.95
Total	89.47	407.62	202.27	292.06	532.11	947.74	290.07	19.50	86.27	67.21

Appendix B continued.

Species	71	72	73	74	75	76	77	78	79	80
Aleutian skate	-	-	-	-	-	-	-	-	-	-
Arrowtooth flounder	-	0.03	-	7.32	1.65	1.09	-	1.07	12.23	2.21
Aurora rockfish	-	-	-	-	-	-	-	-	-	-
Big skate	-	-	-	-	-	-	-	-	-	-
Bigmouth sculpin	-	-	-	-	-	-	-	-	-	-
Blackbelly eelpout	-	-	-	-	-	-	-	-	-	-
Bocaccio	-	-	-	-	-	-	-	-	-	-
Canary rockfish	3.61	-	-	170.52	2.12	-	-	-	-	-
Copper rockfish	-	-	-	-	-	-	-	-	-	-
Curlfin sole	-	-	-	-	-	-	-	-	-	-
Darkblotched rockfish	-	-	-	-	-	-	-	-	-	0.12
Dover sole	-	-	-	0.17	0.72	-	-	-	0.46	-
English sole	-	-	-	2.68	-	-	-	-	-	-
Eulachon	-	-	-	-	-	-	-	-	-	0.12
Flathead sole	-	-	-	-	1.10	-	-	-	-	-
Greenstriped rockfish	-	-	-	5.14	-	1.03	-	4.02	-	0.51
Harlequin rockfish	-	-	-	-	-	-	-	-	-	-
Lingcod	1.45	7.30	-	17.28	-	-	-	-	3.11	-
Longnose skate	-	-	5.64	-	-	-	-	-	-	-
Longspine thornyhead	-	-	-	-	-	-	-	-	-	-
Pacific cod	-	-	-	14.50	-	0.22	1.39	0.54	0.38	2.49
Pacific hake	-	-	-	0.02	-	-	-	-	-	-
Pacific halibut	-	-	45.98	6.50	-	-	-	-	-	-
Pacific ocean perch	-	-	-	0.04	-	-	-	-	0.24	2.02
Pacific sanddab	-	-	5.70	0.02	-	-	-	0.01	-	-
Petrale sole	-	-	3.31	-	-	-	-	-	-	-
Quillback rockfish	-	0.55	-	-	-	-	-	-	-	-
Ragfish	-	-	-	-	-	-	-	-	-	-
Redbanded rockfish	-	-	-	-	0.04	0.03	-	15.28	-	43.02
Redstripe rockfish	-	12.04	-	-	0.32	3.35	1.33	-	0.28	2.66
Rex sole	-	-	-	2.43	2.43	0.11	-	1.40	-	2.86
Rosethorn rockfish	-	-	-	-	-	-	-	-	-	-
Rougheye rockfish	-	-	-	-	-	-	-	-	-	-
Sablefish	-	-	-	-	-	-	-	-	-	-
Sandpaper skate	-	-	-	-	-	-	-	-	-	-
Sharpchin rockfish	-	-	-	0.41	0.70	0.03	-	1.94	-	0.14
Shortraker rockfish	-	-	-	-	-	-	-	-	-	-
Shortspine thornyhead	-	-	-	-	-	-	-	-	-	-
Silvergray rockfish	-	-	-	76.18	-	15.24	1.42	22.50	-	10.84
Slender sole	-	-	-	-	0.22	-	-	-	0.13	0.03
Southern rock sole	-	-	5.45	0.17	-	-	-	-	-	-
Spiny dogfish	11.58	12.03	-	7.02	9.27	-	-	-	-	4.18
Splitnose rockfish	-	-	-	-	-	-	-	-	-	-
Spotted ratfish	0.43	0.62	-	144.38	3.26	0.16	-	0.30	0.33	0.55
Walleye pollock	-	-	-	0.73	0.02	-	-	1.28	-	-
Widow rockfish	-	-	-	-	-	-	-	-	-	-
Wolf eel	-	-	-	-	-	-	-	-	-	-
Yelloweye rockfish	2.15	2.98	-	28.98	-	5.66	-	3.05	-	1.69
Yellowmouth rockfish	-	-	-	-	-	0.73	0.61	0.02	0.16	1.18
Yellowtail rockfish	-	-	-	-	-	-	-	5.12	-	65.42
Other	0.26	0.77	-	2.74	6.85	0.62	-	7.22	2.73	4.85
Total	19.48	36.32	66.08	487.23	28.70	28.27	4.75	63.75	20.05	144.89

Appendix B continued.

Species	81	82	83	84	85	86	87	88	89	90
Aleutian skate	-	-	-	-	-	-	-	2.95	-	-
Arrowtooth flounder	111.42	328.36	32.36	500.78	56.46	8.78	16.82	16.18	53.04	24.26
Aurora rockfish	-	-	-	-	-	-	-	-	-	-
Big skate	-	-	-	-	-	-	-	-	-	-
Bigmouth sculpin	-	-	-	-	-	-	-	-	-	-
Blackbelly eelpout	-	0.72	-	-	-	-	-	0.03	-	-
Bocaccio	-	-	-	-	-	-	-	-	-	-
Canary rockfish	1.64	-	-	-	-	-	-	-	-	-
Copper rockfish	-	-	-	-	-	-	-	-	-	-
Curlfin sole	1.38	-	-	-	-	-	-	-	-	-
Darkblotched rockfish	-	0.46	-	-	-	-	-	-	-	-
Dover sole	-	1.08	0.40	0.40	-	-	7.38	6.84	12.22	10.47
English sole	30.10	76.64	-	-	-	-	-	-	-	-
Eulachon	-	0.28	0.06	-	-	-	0.06	0.57	0.04	0.14
Flathead sole	-	1.78	-	-	-	-	3.68	0.23	-	0.56
Greenstriped rockfish	-	-	-	-	-	0.96	-	-	-	-
Harlequin rockfish	-	-	-	-	-	-	-	-	-	-
Lingcod	10.62	-	-	-	-	1.26	-	-	-	-
Longnose skate	-	-	-	-	-	-	-	-	-	2.70
Longspine thornyhead	-	-	-	-	-	-	-	-	-	-
Pacific cod	78.42	29.92	1.46	-	4.40	4.96	-	-	-	-
Pacific hake	-	13.07	-	-	-	-	10.90	12.98	19.00	16.35
Pacific halibut	5.20	-	-	-	-	-	8.45	-	-	-
Pacific ocean perch	-	-	0.91	-	0.01	0.01	211.46	58.07	15.83	7.40
Pacific sanddab	32.34	0.38	-	-	-	-	-	-	-	-
Petrale sole	28.52	3.20	-	-	1.00	-	-	-	-	-
Quillback rockfish	0.48	-	-	-	-	-	-	-	-	-
Ragfish	-	-	-	-	-	-	-	-	-	-
Redbanded rockfish	2.50	-	-	-	-	-	1.38	2.84	10.42	12.25
Redstripe rockfish	-	-	-	-	-	9.12	-	-	-	-
Rex sole	0.42	3.20	8.12	1.22	0.64	2.12	7.76	4.67	4.01	1.57
Rosethorn rockfish	-	-	-	-	-	-	-	-	-	-
Rougheye rockfish	-	-	-	-	-	-	-	1.79	5.90	0.37
Sablefish	-	4.44	6.16	-	-	-	1.28	9.16	17.00	12.51
Sandpaper skate	-	-	-	-	-	-	-	-	-	-
Sharpchin rockfish	-	-	-	0.22	-	0.03	-	-	-	-
Shortraker rockfish	-	-	-	-	-	-	-	-	-	-
Shortspine thornyhead	-	-	-	-	-	-	-	0.32	0.33	1.37
Silvergray rockfish	-	-	17.94	8.00	2.39	43.14	3.52	-	-	2.37
Slender sole	-	0.43	-	-	-	-	0.80	0.41	0.24	0.27
Southern rock sole	13.78	-	-	-	-	-	-	-	-	-
Spiny dogfish	79.84	187.91	-	15.22	8.76	90.12	1.54	-	-	1.85
Splitnose rockfish	-	-	-	-	-	-	-	0.06	-	-
Spotted ratfish	558.56	40.22	1.02	2.28	1.01	-	-	-	-	-
Walleye pollock	12.98	43.18	7.05	-	-	-	-	-	-	-
Widow rockfish	-	-	-	-	-	-	-	-	-	-
Wolf eel	3.92	-	-	-	-	-	-	-	-	-
Yelloweye rockfish	-	-	-	-	-	-	-	-	-	-
Yellowmouth rockfish	-	-	-	-	-	-	-	-	-	-
Yellowtail rockfish	-	-	-	-	-	-	-	-	-	-
Other	5.44	3.87	6.55	1.26	13.04	0.17	4.09	0.48	58.91	0.97
Total	977.56	739.14	82.03	529.38	87.71	160.67	279.12	117.58	196.94	95.41

Appendix B continued.

Species	91	92	93	94	95	96	97	98	99	100
Aleutian skate	7.84	-	-	-	-	-	-	-	-	-
Arrowtooth flounder	630.52	12.75	12.24	17.64	11.14	35.84	64.22	10.33	15.48	12.62
Aurora rockfish	-	-	-	-	-	-	-	-	-	-
Big skate	-	-	-	-	-	-	-	-	-	-
Bigmouth sculpin	-	-	-	-	-	-	-	-	-	-
Blackbelly eelpout	-	-	-	-	-	-	-	-	-	0.01
Bocaccio	-	-	-	3.19	-	-	-	-	-	-
Canary rockfish	-	-	-	-	-	-	-	-	-	-
Copper rockfish	-	-	-	-	-	-	-	-	-	-
Curlfin sole	-	-	-	-	-	-	-	-	-	-
Darkblotched rockfish	-	-	-	-	-	-	-	-	-	-
Dover sole	20.16	15.46	1.31	19.60	1.38	15.30	39.52	6.20	3.86	1.40
English sole	-	-	-	-	-	-	-	-	-	-
Eulachon	-	-	0.04	0.09	-	-	-	-	-	-
Flathead sole	0.40	-	-	-	-	-	-	2.04	3.08	0.82
Greenstriped rockfish	-	-	-	-	-	-	-	-	-	-
Harlequin rockfish	-	-	-	0.05	-	-	-	-	-	-
Lingcod	-	-	-	-	-	-	-	-	-	-
Longnose skate	6.38	3.99	-	-	-	-	14.21	-	-	-
Longspine thornyhead	-	-	-	-	-	-	-	-	-	-
Pacific cod	-	-	3.73	-	-	-	-	-	-	-
Pacific hake	7.34	3.00	0.93	2.83	76.65	47.12	18.38	2.20	4.70	2.26
Pacific halibut	10.19	-	-	6.79	-	-	-	-	-	-
Pacific ocean perch	7.98	9.84	86.77	19.65	38.56	58.38	42.58	14.49	61.87	82.28
Pacific sanddab	-	-	-	-	-	-	-	-	-	-
Petrale sole	-	-	-	-	-	-	-	-	-	0.84
Quillback rockfish	-	-	-	-	-	-	-	-	-	-
Ragfish	-	-	-	-	-	-	-	-	-	-
Redbanded rockfish	0.72	1.10	4.62	9.24	7.96	3.72	10.52	4.58	1.14	4.28
Redstripe rockfish	-	-	-	-	-	-	-	-	-	-
Rex sole	5.68	3.51	2.08	11.00	2.27	8.70	13.02	6.09	16.88	12.82
Rosethorn rockfish	-	-	0.53	-	-	-	-	-	-	-
Rougheye rockfish	0.86	-	1.33	2.31	2.60	9.46	5.46	-	-	-
Sablefish	9.68	11.21	2.12	1.30	4.32	34.60	20.38	8.36	7.36	4.22
Sandpaper skate	1.20	-	-	-	-	-	-	-	-	-
Sharpchin rockfish	-	-	-	-	-	-	-	-	-	-
Shortraker rockfish	-	-	-	-	-	-	-	-	-	-
Shortspine thornyhead	0.92	0.54	8.92	0.45	6.44	17.60	5.44	3.32	1.44	2.58
Silvergray rockfish	1.86	-	22.76	25.80	5.22	-	1.42	1.98	-	-
Slender sole	0.46	0.68	0.20	0.29	-	0.06	-	0.62	1.02	0.54
Southern rock sole	-	-	-	-	-	-	-	-	-	-
Spiny dogfish	-	-	-	-	-	-	2.40	1.15	2.48	-
Splitnose rockfish	-	-	-	0.29	-	0.28	0.44	0.33	1.02	0.44
Spotted ratfish	-	-	-	-	0.34	0.40	1.10	-	1.37	-
Walleye pollock	-	-	2.60	-	-	0.86	-	-	-	1.52
Widow rockfish	-	-	-	-	-	-	-	-	-	-
Wolf eel	-	-	-	-	-	-	-	-	-	-
Yelloweye rockfish	-	-	-	-	-	-	-	-	-	-
Yellowmouth rockfish	-	-	-	-	-	-	-	-	-	-
Yellowtail rockfish	-	-	-	-	-	-	-	-	-	-
Other	0.56	1.53	46.69	3.61	22.57	1.14	0.60	1.45	2.69	2.39
Total	712.75	63.61	196.87	124.13	179.45	233.46	239.69	63.14	124.39	129.02

Appendix B continued.

Species	101	102	103	104	105	106	107	108	109	110
Aleutian skate	-	-	-	-	-	-	-	-	-	-
Arrowtooth flounder	15.49	11.19	4.28	0.79	0.19	1.40	18.02	19.93	30.20	21.81
Aurora rockfish	-	-	-	-	-	-	-	-	-	-
Big skate	-	-	-	-	-	-	-	-	-	-
Bigmouth sculpin	-	-	-	-	-	-	-	-	-	-
Blackbelly eelpout	-	-	-	-	-	-	0.10	0.01	-	-
Bocaccio	-	-	-	-	-	4.48	3.80	-	-	-
Canary rockfish	-	-	-	3.01	-	-	-	-	-	-
Copper rockfish	-	-	-	-	-	-	-	-	-	-
Curlfin sole	-	-	-	-	-	-	-	-	-	-
Darkblotched rockfish	-	-	-	-	-	-	-	-	-	-
Dover sole	1.40	1.80	-	-	-	-	1.10	-	-	-
English sole	-	-	-	-	-	0.54	-	-	-	-
Eulachon	-	-	-	-	-	-	-	-	-	-
Flathead sole	-	-	-	-	-	-	-	0.44	3.41	-
Greenstriped rockfish	-	-	0.02	-	-	-	-	-	-	-
Harlequin rockfish	-	0.10	-	-	-	-	0.09	-	-	-
Lingcod	-	-	7.29	-	16.77	7.48	-	-	-	-
Longnose skate	-	-	-	-	-	-	16.99	-	15.43	-
Longspine thornyhead	-	-	-	-	-	-	-	-	-	-
Pacific cod	-	-	2.96	-	0.54	6.00	-	-	-	-
Pacific hake	3.99	-	-	-	-	-	3.06	-	-	2.39
Pacific halibut	-	-	3.24	-	3.86	8.06	-	-	1.94	-
Pacific ocean perch	13.68	18.05	-	-	-	1.74	29.52	16.53	6.57	0.31
Pacific sanddab	-	-	-	-	0.11	-	-	-	-	-
Petrale sole	-	-	6.89	-	0.80	-	-	1.12	-	-
Quillback rockfish	-	-	-	-	-	-	-	-	-	-
Ragfish	-	-	-	-	-	-	-	-	-	-
Redbanded rockfish	4.44	7.51	-	-	-	-	8.80	27.59	2.32	1.36
Redstripe rockfish	-	-	-	-	-	-	-	-	-	-
Rex sole	16.20	2.56	0.14	-	-	0.46	1.87	5.96	8.25	-
Rosethorn rockfish	-	-	-	-	-	-	-	-	-	-
Rougheye rockfish	-	3.83	-	-	-	-	-	-	-	-
Sablefish	4.38	6.40	-	-	-	-	5.38	2.30	3.04	-
Sandpaper skate	-	-	-	-	-	-	-	2.48	-	-
Sharpchin rockfish	-	-	-	-	-	-	0.11	0.23	0.09	-
Shortraker rockfish	-	-	-	-	-	-	-	-	-	-
Shortspine thornyhead	1.20	2.15	-	-	-	-	-	0.33	-	-
Silvergray rockfish	-	3.60	-	-	-	504.39	40.31	133.41	63.13	8.66
Slender sole	0.25	0.09	-	-	-	-	0.29	0.47	0.08	-
Southern rock sole	-	-	0.03	-	-	-	-	-	-	-
Spiny dogfish	-	-	0.50	9.83	3.17	5.92	-	-	6.08	4.80
Splitnose rockfish	-	0.60	-	-	-	-	-	-	-	0.10
Spotted ratfish	0.40	-	0.62	0.14	0.15	-	0.62	0.17	0.15	0.19
Walleye pollock	1.55	1.99	-	-	-	0.72	-	0.27	-	-
Widow rockfish	-	-	-	-	-	-	-	-	-	-
Wolf eel	-	-	-	-	-	-	-	-	-	-
Yelloweye rockfish	-	-	-	5.60	-	-	-	-	-	-
Yellowmouth rockfish	-	-	-	0.06	0.01	1.68	17.60	0.01	1.49	-
Yellowtail rockfish	-	-	-	-	-	9.74	-	1.81	-	-
Other	1.19	1.01	0.22	0.76	4.71	0.52	1.20	1.39	1.18	10.59
Total	64.17	60.88	26.19	20.19	30.31	553.13	148.86	214.45	143.36	50.21

Appendix B continued.

Species	111	112	113	114	115	116	117	118	119	120
Aleutian skate	-	-	-	-	-	-	-	-	-	-
Arrowtooth flounder	1.84	9.04	29.52	1.24	0.12	0.12	15.60	13.48	5.13	3.90
Aurora rockfish	-	-	-	-	-	-	-	-	-	-
Big skate	-	-	-	-	-	-	-	-	-	-
Bigmouth sculpin	-	-	-	-	-	-	-	-	-	4.30
Blackbelly eelpout	-	-	-	-	-	-	-	-	-	-
Bocaccio	-	-	-	-	-	-	-	-	-	-
Canary rockfish	-	-	4.76	-	-	-	-	-	3.41	-
Copper rockfish	-	-	-	-	-	-	-	-	-	-
Curlfin sole	-	-	-	-	-	-	-	-	-	-
Darkblotched rockfish	-	-	-	-	-	-	-	0.15	-	-
Dover sole	-	-	-	-	-	-	-	3.30	-	-
English sole	-	-	-	-	-	-	-	-	-	-
Eulachon	-	0.11	-	-	-	-	-	-	-	-
Flathead sole	-	-	-	-	-	-	-	-	-	-
Greenstriped rockfish	-	-	0.61	-	-	-	-	-	-	-
Harlequin rockfish	-	-	-	-	-	-	-	-	-	-
Lingcod	-	-	9.80	20.97	-	10.89	-	-	1.68	-
Longnose skate	-	10.10	-	-	-	-	-	-	-	-
Longspine thornyhead	-	-	-	-	-	-	-	-	-	-
Pacific cod	-	-	-	-	0.18	0.72	1.11	-	3.68	0.94
Pacific hake	2.20	2.09	-	-	-	-	-	-	-	-
Pacific halibut	-	-	-	13.37	18.38	8.98	-	-	-	-
Pacific ocean perch	22.56	27.45	8.40	-	-	-	-	1.72	20.16	25.24
Pacific sanddab	-	-	-	-	0.15	-	-	-	-	-
Petrale sole	-	-	11.16	-	0.71	4.06	-	-	-	-
Quillback rockfish	-	-	-	-	-	-	-	-	-	-
Ragfish	-	-	-	-	-	-	-	-	-	-
Redbanded rockfish	22.18	16.20	0.97	-	-	-	-	5.62	4.31	34.07
Redstripe rockfish	-	-	2.65	-	-	-	-	-	0.27	-
Rex sole	-	-	4.38	-	-	-	4.03	0.18	0.68	1.16
Rosethorn rockfish	-	-	-	-	-	-	-	-	-	-
Rougheye rockfish	0.16	1.26	-	-	-	-	-	-	-	-
Sablefish	-	-	-	-	-	-	-	-	3.09	-
Sandpaper skate	-	-	-	-	-	-	-	0.10	-	-
Sharpchin rockfish	16.22	1.34	-	0.03	-	-	-	-	0.16	0.14
Shortraker rockfish	-	-	-	-	-	-	-	-	-	-
Shortspine thornyhead	0.18	0.71	0.38	-	-	-	-	-	-	-
Silvergray rockfish	0.82	-	23.80	5.77	5.05	-	13.88	16.83	19.94	69.96
Slender sole	-	-	0.38	-	-	-	-	-	-	-
Southern rock sole	-	-	-	-	3.30	0.81	-	-	-	-
Spiny dogfish	6.62	5.85	3.38	-	-	2.35	5.41	4.87	6.04	38.66
Splitnose rockfish	-	-	-	-	-	-	-	-	-	-
Spotted ratfish	0.22	0.42	1.02	1.40	8.98	3.64	0.48	-	-	-
Walleye pollock	-	-	0.24	0.30	-	-	-	-	-	1.83
Widow rockfish	-	-	-	-	-	-	-	-	-	-
Wolf eel	-	-	-	-	-	-	-	-	-	-
Yelloweye rockfish	-	-	-	-	-	-	-	-	-	-
Yellowmouth rockfish	1.38	1.83	0.14	0.43	-	-	0.55	-	0.10	-
Yellowtail rockfish	-	-	5.90	-	-	-	-	-	-	4.46
Other	17.88	9.19	3.22	0.42	0.05	2.90	3.15	4.48	2.07	1.84
Total	92.26	85.59	110.71	43.93	36.92	34.47	44.21	50.73	70.72	186.50

Appendix B continued.

Species	121	122	123	124	125	126	127	128	129	130
Aleutian skate	-	-	-	-	-	-	-	-	-	-
Arrowtooth flounder	17.22	5.74	2.24	2.52	19.54	16.90	38.18	11.28	49.67	0.15
Aurora rockfish	-	-	-	-	-	-	-	-	-	-
Big skate	-	-	-	-	-	-	-	-	-	22.37
Bigmouth sculpin	-	-	-	-	-	-	-	-	-	-
Blackbelly eelpout	-	-	-	-	-	-	0.03	0.09	-	-
Bocaccio	-	-	-	-	-	-	-	-	-	-
Canary rockfish	2.65	-	-	-	-	-	-	-	-	-
Copper rockfish	-	-	-	-	-	-	-	-	-	-
Curlfin sole	-	-	-	-	-	-	-	-	0.46	0.53
Darkblotched rockfish	-	-	-	-	-	-	-	-	-	-
Dover sole	-	-	-	1.62	1.28	1.36	1.65	0.75	-	-
English sole	-	-	-	-	-	-	-	11.97	4.54	-
Eulachon	-	-	-	-	-	-	-	-	-	-
Flathead sole	-	-	-	-	-	-	-	-	-	-
Greenstriped rockfish	0.70	0.38	0.66	6.72	-	-	-	1.60	-	-
Harlequin rockfish	-	-	-	-	-	-	-	-	-	-
Lingcod	-	-	-	-	-	-	19.12	-	-	5.47
Longnose skate	-	-	-	-	-	-	7.54	8.73	-	-
Longspine thornyhead	-	-	-	-	-	-	-	-	-	-
Pacific cod	3.07	-	1.89	-	-	-	-	-	-	-
Pacific hake	-	-	-	-	-	-	16.31	11.18	-	-
Pacific halibut	-	-	-	-	-	-	-	-	-	42.48
Pacific ocean perch	7.66	1.57	1.23	399.00	90.98	-	-	71.50	-	-
Pacific sanddab	-	-	-	-	-	-	-	-	-	0.29
Petrale sole	-	-	1.44	2.30	10.22	1.46	0.82	-	0.76	1.40
Quillback rockfish	-	-	-	-	-	-	-	-	-	-
Ragfish	-	-	-	-	-	-	-	-	-	-
Redbanded rockfish	-	7.72	4.05	40.88	18.30	2.91	-	21.53	-	-
Redstripe rockfish	0.68	14.35	3.33	105.46	-	-	-	-	-	-
Rex sole	1.34	0.86	0.62	3.10	1.78	2.09	6.36	8.90	0.56	-
Rosethorn rockfish	-	-	-	0.91	-	-	-	0.50	-	-
Rougheye rockfish	-	-	-	-	-	-	-	-	-	-
Sablefish	-	1.03	-	3.38	-	-	-	-	-	-
Sandpaper skate	-	-	-	-	-	-	-	-	-	-
Sharpchin rockfish	0.80	0.35	0.10	3.30	0.18	-	-	20.34	-	-
Shortraker rockfish	-	-	-	-	-	-	-	-	-	-
Shortspine thornyhead	-	-	-	-	-	-	-	-	-	-
Silvergray rockfish	27.84	35.33	18.00	13.84	2.24	2.20	3.95	53.02	11.89	-
Slender sole	-	0.04	-	-	-	-	-	0.09	-	-
Southern rock sole	-	-	-	-	-	-	-	-	-	55.22
Spiny dogfish	4.73	5.00	22.08	16.00	24.48	6.90	125.80	36.50	51.32	-
Splitnose rockfish	-	-	-	-	-	-	-	-	-	-
Spotted ratfish	0.11	-	0.58	-	0.34	1.21	0.92	2.50	1.85	-
Walleye pollock	0.56	-	-	0.42	-	-	-	-	-	-
Widow rockfish	-	-	-	-	-	-	-	-	-	-
Wolf eel	-	-	-	-	-	-	-	-	-	14.16
Yelloweye rockfish	-	11.14	2.13	18.60	-	-	-	11.90	-	-
Yellowmouth rockfish	0.50	-	-	4.70	0.48	-	-	6.70	-	-
Yellowtail rockfish	6.08	-	-	-	-	-	-	5.40	-	-
Other	3.33	4.20	0.65	115.04	1.24	2.09	1.17	61.15	4.34	15.47
Total	77.27	87.71	59.00	737.79	171.06	37.12	221.85	345.63	125.39	157.54

Appendix B continued.

Species	131	132	133	134	135	136	137	138	139	140
Aleutian skate	-	-	-	-	-	-	-	-	-	-
Arrowtooth flounder	-	22.34	377.54	3.61	16.46	40.80	15.80	10.50	54.79	63.48
Aurora rockfish	-	-	-	-	-	-	-	-	-	-
Big skate	241.27	7.86	-	-	-	-	-	-	-	-
Bigmouth sculpin	-	-	-	-	-	-	-	-	-	-
Blackbelly eelpout	-	-	-	-	0.36	-	-	-	-	0.16
Bocaccio	-	9.56	-	-	-	-	-	-	-	-
Canary rockfish	-	-	22.84	7.80	6.02	-	-	-	-	2.10
Copper rockfish	-	-	-	-	-	-	-	-	-	-
Curlfin sole	-	-	-	1.06	-	-	-	-	-	-
Darkblotched rockfish	-	-	-	-	0.28	1.96	-	-	-	-
Dover sole	-	-	-	-	22.90	11.66	8.16	1.60	5.56	2.04
English sole	-	-	2.64	38.78	1.18	-	-	-	0.62	0.52
Eulachon	-	-	-	-	-	-	-	-	-	-
Flathead sole	-	-	-	-	1.80	2.14	-	-	2.98	-
Greenstriped rockfish	-	-	-	-	-	-	-	-	0.30	-
Harlequin rockfish	-	-	-	-	-	-	-	-	-	-
Lingcod	15.74	49.64	13.94	54.23	-	-	-	-	-	-
Longnose skate	3.10	-	-	-	4.09	-	10.36	-	-	-
Longspine thornyhead	-	-	-	-	-	-	-	-	-	-
Pacific cod	-	-	2.66	-	1.90	1.82	-	6.54	1.59	1.09
Pacific hake	-	-	-	0.79	12.82	1.73	0.74	3.24	1.03	2.73
Pacific halibut	60.47	198.77	3.80	63.89	3.14	-	11.19	-	-	-
Pacific ocean perch	-	-	-	-	220.54	161.45	57.22	478.08	492.75	339.83
Pacific sanddab	0.28	-	-	-	-	-	-	-	-	-
Petrale sole	1.00	-	0.90	8.54	-	1.22	-	-	-	-
Quillback rockfish	-	-	-	-	-	-	-	-	-	-
Ragfish	-	-	-	-	-	-	-	-	-	-
Redbanded rockfish	-	-	-	-	12.06	26.46	3.36	3.18	27.19	8.94
Redstripe rockfish	-	-	-	-	-	-	-	0.38	0.53	-
Rex sole	-	-	9.16	2.16	10.68	29.96	28.50	2.64	18.12	21.84
Rosethorn rockfish	-	-	-	-	-	-	-	-	-	-
Rougheye rockfish	-	-	-	-	-	14.78	2.28	-	-	-
Sablefish	-	-	-	-	6.64	1.06	6.48	1.90	-	4.29
Sandpaper skate	-	-	-	-	-	-	-	-	-	-
Sharpchin rockfish	-	-	-	-	0.12	-	-	-	-	-
Shortraker rockfish	-	-	-	-	-	-	-	-	-	-
Shortspine thornyhead	-	-	-	-	5.72	7.62	16.92	0.66	0.86	-
Silvergray rockfish	-	-	3.60	-	2.02	-	-	-	-	-
Slender sole	-	-	-	-	0.68	0.32	0.20	0.20	0.56	0.15
Southern rock sole	21.82	2.66	7.40	42.98	-	-	-	-	-	-
Spiny dogfish	8.54	-	14.72	8.69	7.94	1.32	3.46	-	5.86	10.68
Splitnose rockfish	-	-	-	-	0.90	0.22	-	-	-	-
Spotted ratfish	2.62	-	8.06	9.58	0.32	0.16	3.54	0.32	2.33	2.04
Walleye pollock	-	-	-	-	-	1.15	-	-	16.15	2.36
Widow rockfish	-	-	-	-	-	-	-	-	-	-
Wolf eel	-	-	-	-	-	-	-	-	-	-
Yelloweye rockfish	-	-	-	-	-	-	-	-	-	-
Yellowmouth rockfish	-	-	-	-	63.06	1.34	-	-	11.92	20.80
Yellowtail rockfish	-	-	-	-	-	-	-	-	-	1.76
Other	3.90	8.98	4.52	13.97	2.84	0.06	0.64	2.31	4.12	0.50
Total	358.74	299.81	471.78	256.08	404.47	307.23	168.85	511.55	647.26	485.31

Appendix B continued.

Species	141	142	143	144	145	146	147	148	149	150
Aleutian skate	-	-	-	-	-	-	-	-	-	-
Arrowtooth flounder	14.09	0.20	-	-	-	-	31.86	12.18	0.53	10.68
Aurora rockfish	-	-	-	-	-	-	-	-	-	-
Big skate	-	-	-	17.62	20.46	-	-	-	-	-
Bigmouth sculpin	-	-	-	-	-	-	-	-	-	-
Blackbelly eelpout	-	-	-	-	-	-	-	-	-	0.07
Bocaccio	-	-	-	-	-	-	1.57	96.46	-	-
Canary rockfish	-	-	-	-	-	-	154.22	8.02	-	-
Copper rockfish	-	-	-	-	-	-	-	-	-	-
Curlfin sole	-	-	-	-	-	-	-	-	-	-
Darkblotched rockfish	-	-	-	-	-	-	-	-	-	-
Dover sole	-	-	-	-	-	-	4.01	-	-	6.50
English sole	-	-	-	-	-	-	0.38	-	-	-
Eulachon	-	-	-	-	-	-	-	-	-	-
Flathead sole	-	-	-	-	-	-	-	-	-	1.86
Greenstriped rockfish	0.26	-	-	-	-	-	5.64	0.02	0.60	3.94
Harlequin rockfish	-	-	-	-	-	-	-	19.60	5.56	-
Lingcod	-	76.34	23.34	8.04	7.52	-	6.26	3.00	-	-
Longnose skate	-	-	-	-	-	-	-	-	-	-
Longspine thornyhead	-	-	-	-	-	-	-	-	-	-
Pacific cod	3.61	2.83	-	-	-	-	6.58	1.30	5.38	-
Pacific hake	0.83	872.55	-	-	-	-	1.18	-	-	4.04
Pacific halibut	-	15.28	21.76	66.12	45.30	-	-	20.31	18.44	-
Pacific ocean perch	-	-	-	-	-	-	-	-	-	505.63
Pacific sanddab	-	1.65	0.25	0.03	0.10	-	-	-	-	-
Petrale sole	4.64	0.99	-	7.42	-	-	-	-	-	-
Quillback rockfish	-	-	4.51	-	-	-	-	-	-	-
Ragfish	-	-	-	-	-	-	-	-	-	-
Redbanded rockfish	-	-	-	-	-	-	1.56	-	-	9.05
Redstripe rockfish	-	-	-	-	-	-	146.06	1275.78	189.98	-
Rex sole	1.64	0.18	-	-	-	-	15.51	2.16	1.78	22.21
Rosethorn rockfish	-	-	-	-	-	-	-	0.94	1.26	-
Rougheye rockfish	-	-	-	-	-	-	-	-	-	-
Sablefish	-	-	-	-	-	-	1.66	8.76	-	5.72
Sandpaper skate	-	-	-	-	-	-	-	-	-	-
Sharpchin rockfish	-	-	-	-	-	-	-	142.82	13.30	-
Shortraker rockfish	-	-	-	-	-	-	-	-	-	-
Shortspine thornyhead	-	-	-	-	-	-	-	-	-	0.11
Silvergray rockfish	3.72	-	-	-	-	-	145.78	206.67	16.58	15.99
Slender sole	-	-	-	-	-	-	-	-	-	0.64
Southern rock sole	-	0.55	5.54	80.30	255.50	-	-	-	-	-
Spiny dogfish	-	-	-	100.52	48.42	-	4.48	-	-	-
Splitnose rockfish	-	-	-	-	-	-	-	-	-	0.10
Spotted ratfish	1.64	8.50	11.40	-	-	-	0.02	-	-	0.04
Walleye pollock	-	-	0.22	-	-	-	0.12	-	0.16	3.24
Widow rockfish	-	-	-	-	-	-	-	0.70	-	-
Wolf eel	-	-	-	15.18	3.02	-	-	-	-	-
Yelloweye rockfish	-	-	-	-	-	-	-	5.28	14.88	2.81
Yellowmouth rockfish	1.13	-	-	-	-	-	82.17	4.68	6.98	290.00
Yellowtail rockfish	-	-	-	-	-	-	1.23	2.50	-	-
Other	0.45	0.52	4.36	0.39	0.06	-	7.07	2.63	1.72	1.89
Total	32.01	979.59	71.38	295.62	380.38	-	617.36	1813.81	277.15	884.52

Appendix B continued.

Species	151	152	153	154	155	156	157	158	159	160
Aleutian skate	-	-	-	-	-	-	-	-	-	-
Arrowtooth flounder	4.02	2.04	-	19.88	11.62	4.60	2.64	0.41	23.88	25.42
Aurora rockfish	-	-	-	-	-	-	-	-	-	-
Big skate	-	-	-	-	-	-	-	-	-	-
Bigmouth sculpin	-	-	-	-	-	-	-	-	-	-
Blackbelly eelpout	-	-	-	0.02	-	-	-	-	-	-
Bocaccio	4.38	-	-	-	-	-	-	-	-	-
Canary rockfish	-	-	-	-	-	-	-	-	-	-
Copper rockfish	-	-	-	-	-	-	-	-	-	-
Curlfin sole	-	-	0.43	-	-	-	-	-	-	-
Darkblotched rockfish	-	-	-	-	-	-	-	-	2.30	4.55
Dover sole	-	-	-	5.93	2.48	4.34	-	-	7.26	4.47
English sole	-	-	-	-	-	-	1.45	-	-	-
Eulachon	-	-	-	-	-	-	-	0.25	-	-
Flathead sole	0.35	-	-	-	-	-	-	-	-	-
Greenstriped rockfish	70.58	0.70	-	-	-	-	3.87	-	-	-
Harlequin rockfish	-	-	-	-	-	-	-	-	-	-
Lingcod	6.42	3.26	3.22	-	-	-	1.94	1.20	-	-
Longnose skate	-	-	-	-	-	-	-	-	6.03	-
Longspine thornyhead	-	-	-	-	-	-	-	-	-	-
Pacific cod	25.10	-	-	-	-	-	-	-	-	-
Pacific hake	-	-	-	3.10	18.39	21.08	-	1.83	22.88	52.05
Pacific halibut	8.78	3.64	57.88	-	-	-	-	5.61	-	-
Pacific ocean perch	272.54	-	-	131.49	100.91	228.66	22.01	34.41	39.88	92.07
Pacific sanddab	-	-	-	-	-	-	-	-	-	-
Petrale sole	0.72	-	-	-	-	-	2.76	-	-	0.54
Quillback rockfish	-	-	9.62	-	-	-	-	-	-	-
Ragfish	-	-	-	-	-	-	-	-	-	-
Redbanded rockfish	8.62	-	-	6.05	10.34	2.16	-	15.25	2.64	8.30
Redstripe rockfish	20.76	51.13	-	-	-	-	-	-	-	-
Rex sole	3.52	1.10	-	-	0.97	0.48	0.85	0.24	-	0.28
Rosethorn rockfish	16.75	1.52	-	-	2.55	0.46	-	-	-	-
Rougheye rockfish	-	-	-	0.32	3.28	3.50	-	-	-	5.84
Sablefish	-	4.10	-	7.46	7.48	7.54	-	-	71.72	21.28
Sandpaper skate	-	-	-	-	-	-	-	-	-	-
Sharpchin rockfish	16.94	0.72	-	0.23	0.06	-	-	0.46	-	-
Shortraker rockfish	-	-	-	-	-	-	-	-	-	-
Shortspine thornyhead	1.24	-	-	2.13	23.85	3.84	0.50	0.18	9.24	6.69
Silvergray rockfish	34.24	5.79	-	-	-	-	18.47	1.53	-	-
Slender sole	0.05	-	-	0.11	-	0.20	-	-	-	-
Southern rock sole	-	-	24.84	-	-	-	-	-	-	-
Spiny dogfish	2.80	-	-	4.65	1.03	-	-	-	-	-
Splitnose rockfish	-	-	-	-	2.06	13.72	-	0.34	-	0.07
Spotted ratfish	0.02	-	2.06	0.42	1.11	-	0.22	-	1.76	-
Walleye pollock	20.30	-	-	-	1.85	-	1.99	2.67	-	-
Widow rockfish	5.46	-	-	-	-	-	-	-	-	-
Wolf eel	-	-	-	-	-	-	-	-	-	-
Yelloweye rockfish	-	13.54	2.04	-	-	-	-	-	-	-
Yellowmouth rockfish	241.32	-	-	4.75	-	-	2.12	5.73	-	-
Yellowtail rockfish	-	-	-	-	-	-	-	-	-	-
Other	1.52	0.47	1.56	3.40	3.05	11.36	2.83	2.16	1.30	0.22
Total	766.43	88.01	101.65	189.94	191.03	301.94	61.65	72.27	188.89	221.78

Appendix B continued.

Species	161	162	163	164	165	166	167	168	169	170
Aleutian skate	-	-	-	-	-	-	-	-	2.87	-
Arrowtooth flounder	9.12	3.94	1.36	37.54	61.28	21.60	7.11	10.57	30.74	8.65
Aurora rockfish	-	-	-	-	-	-	-	-	-	-
Big skate	-	-	-	-	-	-	-	-	-	-
Bigmouth sculpin	-	-	-	-	-	-	-	-	-	-
Blackbelly eelpout	-	-	-	-	-	-	-	-	-	-
Bocaccio	-	-	-	-	-	-	-	-	-	-
Canary rockfish	-	3.24	-	-	3.97	-	-	-	-	-
Copper rockfish	-	-	-	-	-	-	-	-	-	-
Curlfin sole	-	-	-	-	-	-	-	-	-	-
Darkblotched rockfish	-	-	-	0.82	-	-	-	-	-	-
Dover sole	4.09	-	-	9.95	-	-	0.62	4.08	3.26	2.53
English sole	-	-	-	-	-	1.34	-	-	-	-
Eulachon	-	-	-	-	-	-	-	-	-	-
Flathead sole	-	-	-	-	-	-	-	-	-	-
Greenstriped rockfish	-	4.44	2.92	-	1.14	1.36	-	-	-	-
Harlequin rockfish	-	-	-	-	-	-	-	-	-	-
Lingcod	-	2.61	-	-	-	-	-	-	-	-
Longnose skate	-	-	-	-	-	-	7.49	-	-	-
Longspine thornyhead	-	-	-	-	-	-	-	-	-	-
Pacific cod	-	1.76	0.32	-	3.55	0.54	-	-	-	-
Pacific hake	36.11	-	-	121.87	-	-	4.74	4.70	-	1.47
Pacific halibut	4.36	-	-	-	3.88	11.14	-	-	-	-
Pacific ocean perch	74.41	-	210.46	24.10	-	7.54	-	10.05	12.44	7.34
Pacific sanddab	-	-	-	-	-	-	-	-	-	-
Petrale sole	-	0.29	-	-	3.92	1.44	-	-	-	-
Quillback rockfish	-	-	-	-	-	-	-	-	-	-
Ragfish	-	-	-	-	-	-	-	-	-	-
Redbanded rockfish	3.92	-	7.82	1.66	2.74	-	-	1.72	2.66	5.71
Redstripe rockfish	-	663.90	18.80	-	7.22	-	-	-	-	-
Rex sole	-	-	1.62	-	2.26	3.52	-	1.94	0.72	2.50
Rosethorn rockfish	-	0.42	0.92	-	-	-	-	-	-	-
Rougheye rockfish	11.00	-	-	0.77	-	-	3.70	-	3.20	0.18
Sablefish	11.71	-	14.12	13.36	-	-	40.59	18.26	1.60	2.93
Sandpaper skate	-	-	-	-	-	-	0.82	-	-	-
Sharpchin rockfish	-	0.96	111.46	-	-	-	-	-	-	-
Shortraker rockfish	-	-	-	-	-	-	-	-	-	-
Shortspine thornyhead	5.11	-	1.00	6.80	-	-	3.99	3.80	10.57	5.54
Silvergray rockfish	-	7.96	5.54	-	42.56	22.12	7.32	-	-	-
Slender sole	-	-	-	-	-	-	-	-	-	-
Southern rock sole	-	-	-	-	-	-	-	-	-	-
Spiny dogfish	2.76	-	-	-	-	-	-	-	-	-
Splitnose rockfish	0.47	-	-	-	-	-	-	-	1.74	-
Spotted ratfish	-	0.32	0.26	1.69	0.30	-	1.77	-	0.76	-
Walleye pollock	-	-	-	-	-	0.58	-	-	-	-
Widow rockfish	-	-	-	-	-	-	-	-	-	-
Wolf eel	-	-	-	-	-	-	-	-	-	-
Yelloweye rockfish	-	2.39	12.56	-	-	-	-	-	-	-
Yellowmouth rockfish	3.80	0.35	48.32	-	-	0.14	-	-	-	-
Yellowtail rockfish	-	0.64	-	-	1.76	-	-	-	-	-
Other	1.67	5.12	0.52	2.79	1.08	14.60	5.31	2.95	1.94	3.54
Total	168.53	698.34	438.00	221.35	135.66	85.92	83.46	58.07	72.50	40.39

Appendix B continued.

Species	171	172	173	174	175	176	177	178	179	180
Aleutian skate	7.40	-	-	-	-	-	-	-	-	-
Arrowtooth flounder	19.28	24.16	131.32	7.60	9.00	2.78	12.93	4.18	15.86	14.42
Aurora rockfish	-	-	-	-	-	-	-	-	-	-
Big skate	-	-	-	-	-	-	-	-	-	-
Bigmouth sculpin	-	-	-	-	4.71	-	-	-	-	-
Blackbelly eelpout	-	-	-	-	-	-	-	-	-	-
Bocaccio	-	-	-	-	-	-	-	-	-	-
Canary rockfish	-	-	-	-	-	-	2.25	-	-	-
Copper rockfish	-	-	-	-	-	-	-	-	-	-
Curlfin sole	-	-	-	-	-	-	-	-	-	-
Darkblotched rockfish	-	-	-	-	-	-	-	-	-	-
Dover sole	7.85	5.26	70.86	1.24	9.08	0.25	8.88	-	0.52	2.20
English sole	-	-	-	-	-	-	-	-	-	-
Eulachon	-	-	-	-	-	-	-	-	-	-
Flathead sole	-	-	0.54	-	-	-	0.51	0.32	-	2.42
Greenstriped rockfish	-	-	-	-	-	0.91	-	-	-	-
Harlequin rockfish	-	-	-	-	-	-	-	-	-	-
Lingcod	-	-	-	-	-	1.57	-	-	-	-
Longnose skate	12.72	-	5.09	-	-	-	6.22	-	-	-
Longspine thornyhead	-	-	-	-	-	-	-	-	-	-
Pacific cod	-	-	-	-	0.30	0.98	1.27	8.12	7.22	2.06
Pacific hake	49.00	53.20	87.02	147.60	43.86	-	-	-	-	1.12
Pacific halibut	-	-	-	-	-	-	-	-	-	-
Pacific ocean perch	-	30.68	0.52	29.34	85.45	0.06	-	184.53	129.50	20.30
Pacific sanddab	-	-	-	-	-	-	-	-	-	-
Petrale sole	-	-	-	-	-	-	8.34	-	-	5.08
Quillback rockfish	-	-	-	-	-	-	-	-	-	-
Ragfish	-	-	-	-	-	-	-	-	-	-
Redbanded rockfish	-	1.30	2.15	16.28	13.74	-	-	5.42	40.49	8.98
Redstripe rockfish	-	-	-	-	-	0.56	-	-	-	-
Rex sole	8.46	8.14	28.44	1.54	1.58	4.63	15.62	20.58	20.01	21.78
Rosethorn rockfish	-	-	-	-	1.15	-	-	-	2.75	-
Rougheye rockfish	2.40	2.74	0.44	-	0.57	-	-	-	1.55	-
Sablefish	73.68	13.92	12.34	-	3.36	-	0.91	-	11.00	-
Sandpaper skate	-	0.88	-	-	-	-	-	-	-	-
Sharpchin rockfish	-	-	-	0.88	2.68	-	-	-	10.28	-
Shortraker rockfish	-	-	-	-	-	-	-	-	-	-
Shortspine thornyhead	3.66	6.84	3.69	2.33	16.02	-	-	-	9.16	0.50
Silvergray rockfish	-	-	2.46	10.19	2.03	9.04	14.39	38.34	61.12	87.53
Slender sole	-	-	0.70	-	0.15	0.11	0.08	-	0.36	0.58
Southern rock sole	-	-	-	-	-	-	-	-	-	-
Spiny dogfish	-	-	-	-	-	-	1.25	-	-	-
Splitnose rockfish	-	-	0.43	-	0.16	-	-	-	0.20	-
Spotted ratfish	-	-	0.18	-	-	0.23	1.75	0.30	1.53	-
Walleye pollock	-	-	-	-	-	2.52	1.06	0.66	2.54	5.42
Widow rockfish	-	-	-	-	-	-	-	-	-	-
Wolf eel	-	-	-	-	-	-	-	-	-	-
Yelloweye rockfish	-	-	-	-	-	4.59	-	6.10	-	-
Yellowmouth rockfish	-	-	-	-	-	-	0.18	-	-	-
Yellowtail rockfish	-	-	-	-	-	11.00	392.91	-	0.82	-
Other	4.58	3.50	6.90	0.50	1.76	1.70	2.64	2.23	4.47	1.20
Total	189.03	150.62	353.08	217.50	195.60	40.93	471.19	270.78	319.38	173.59

Appendix B continued.

Species	181	182	183	184	185	186	187	188	189	190
Aleutian skate	-	-	-	-	-	-	-	-	-	-
Arrowtooth flounder	2.66	11.50	6.22	2.36	0.52	1.72	5.16	4.18	1.18	11.18
Aurora rockfish	-	-	-	-	-	-	-	-	7.26	-
Big skate	-	-	-	-	-	-	-	-	-	-
Bigmouth sculpin	-	-	-	-	-	-	-	-	-	-
Blackbelly eelpout	-	-	-	-	-	-	-	-	-	-
Bocaccio	-	-	-	-	-	-	-	-	-	-
Canary rockfish	3.83	16.14	2.04	-	10.27	-	-	-	-	-
Copper rockfish	-	-	-	-	-	-	-	-	-	-
Curlfin sole	-	-	-	-	-	-	-	-	-	-
Darkblotched rockfish	-	-	-	-	-	-	4.02	109.96	2.97	3.72
Dover sole	-	1.80	0.52	-	-	-	83.10	3.44	1.61	-
English sole	-	-	2.78	0.73	3.45	4.89	-	-	-	-
Eulachon	-	-	-	-	-	-	-	-	-	-
Flathead sole	0.28	0.57	1.18	-	-	-	-	-	-	-
Greenstriped rockfish	1.44	0.60	-	-	-	-	-	-	-	-
Harlequin rockfish	-	-	-	-	-	-	-	-	-	-
Lingcod	0.80	-	2.06	-	1.85	-	-	-	-	-
Longnose skate	-	-	9.75	-	-	-	0.97	-	-	-
Longspine thornyhead	-	-	-	-	-	-	-	-	-	-
Pacific cod	25.58	2.54	-	-	4.08	0.83	-	-	-	-
Pacific hake	-	-	-	-	-	-	2.98	8.88	59.71	4.40
Pacific halibut	-	7.53	10.65	-	2.98	-	-	-	4.89	-
Pacific ocean perch	1.84	0.17	-	-	-	-	60.10	189.52	287.35	1114.15
Pacific sanddab	-	-	-	-	-	-	-	-	-	-
Petrale sole	4.24	4.12	5.82	1.31	1.22	3.87	-	-	-	-
Quillback rockfish	-	-	-	-	-	-	-	-	-	-
Ragfish	-	-	-	-	-	-	-	-	-	-
Redbanded rockfish	0.88	-	-	-	-	-	2.14	2.82	13.55	0.94
Redstripe rockfish	-	-	-	-	-	-	-	-	-	-
Rex sole	9.64	0.56	10.74	4.84	3.95	1.44	15.15	9.56	0.61	1.46
Rosethorn rockfish	-	-	-	-	-	-	-	2.02	-	14.08
Rougheye rockfish	-	-	-	-	-	-	2.88	0.88	58.00	1.48
Sablefish	-	-	-	-	-	-	50.52	3.54	27.06	-
Sandpaper skate	-	-	-	-	-	-	0.98	-	-	-
Sharpchin rockfish	-	-	-	-	-	-	-	-	-	48.46
Shortraker rockfish	-	-	-	-	-	-	-	-	9.88	-
Shortspine thornyhead	-	-	-	-	-	-	19.30	12.26	18.02	23.32
Silvergray rockfish	257.75	306.85	95.50	-	75.32	40.74	-	-	-	-
Slender sole	-	-	0.22	-	-	0.11	0.22	-	-	-
Southern rock sole	-	-	-	-	2.66	8.62	-	-	-	-
Spiny dogfish	-	-	-	-	-	1.82	-	5.24	-	-
Splitnose rockfish	-	-	-	-	-	-	36.12	112.64	-	-
Spotted ratfish	0.58	0.72	0.66	2.44	4.28	0.98	-	0.46	-	0.36
Walleye pollock	0.94	0.40	-	0.62	-	0.14	-	-	-	-
Widow rockfish	-	-	-	-	-	-	-	-	-	6.44
Wolf eel	-	-	-	-	-	-	-	-	-	-
Yelloweye rockfish	-	-	2.60	-	-	-	-	-	-	-
Yellowmouth rockfish	-	-	-	-	-	-	-	3.08	1.29	257.58
Yellowtail rockfish	-	-	1.66	-	-	-	-	-	-	-
Other	1.54	0.26	3.50	6.26	3.60	1.24	1.78	1.02	4.36	0.19
Total	312.00	353.76	155.90	18.56	114.18	66.40	285.42	469.50	497.74	1487.76

Appendix B continued.

Species	191	192	193	194	195	196	197	198	199	200
Aleutian skate	-	-	-	-	-	-	-	-	-	-
Arrowtooth flounder	-	7.44	7.32	43.68	8.88	11.19	-	1.82	44.72	99.51
Aurora rockfish	-	-	-	0.76	-	-	-	-	-	-
Big skate	-	-	-	-	-	-	3.94	-	-	-
Bigmouth sculpin	-	-	-	-	-	-	-	-	-	-
Blackbelly eelpout	-	-	-	-	-	-	-	-	-	-
Bocaccio	-	-	-	-	-	-	-	-	-	-
Canary rockfish	-	-	-	-	-	-	11.65	-	-	-
Copper rockfish	-	-	-	-	-	-	11.16	-	-	-
Curlfin sole	-	-	-	-	-	-	0.62	1.50	1.02	0.38
Darkblotched rockfish	2.44	-	53.08	0.82	0.66	-	-	-	-	-
Dover sole	-	0.50	-	9.62	-	1.53	-	0.01	-	0.16
English sole	-	-	-	-	-	-	-	2.12	8.20	22.58
Eulachon	-	-	-	-	-	-	-	-	-	-
Flathead sole	-	-	-	-	-	-	-	-	-	-
Greenstriped rockfish	-	-	-	-	-	-	-	-	-	-
Harlequin rockfish	-	-	-	-	-	-	-	-	-	-
Lingcod	-	-	-	6.06	-	-	-	-	4.88	2.47
Longnose skate	-	-	-	-	-	7.42	-	-	-	-
Longspine thornyhead	-	-	-	-	-	-	-	-	-	-
Pacific cod	-	-	-	-	-	-	-	82.32	-	6.78
Pacific hake	0.78	16.60	136.48	164.56	125.88	93.38	-	-	-	-
Pacific halibut	-	-	5.18	-	-	-	-	4.78	13.66	6.58
Pacific ocean perch	325.66	94.74	197.25	89.76	201.28	371.00	-	-	-	-
Pacific sanddab	-	-	-	-	-	-	5.06	16.52	30.56	62.30
Petrale sole	-	-	-	-	-	-	-	3.96	6.26	2.18
Quillback rockfish	-	-	-	-	-	-	5.58	-	-	-
Ragfish	-	-	-	-	-	-	-	-	-	-
Redbanded rockfish	1.52	0.92	32.38	5.00	1.80	3.78	-	-	-	-
Redstripe rockfish	-	-	-	-	-	-	-	-	-	-
Rex sole	-	0.50	0.28	5.46	1.76	4.01	-	0.30	0.28	4.75
Rosethorn rockfish	1.84	-	2.82	0.28	1.56	-	-	-	-	-
Rougheye rockfish	0.72	2.68	1.34	-	-	-	-	-	-	-
Sablefish	-	-	2.36	-	5.22	2.58	-	-	-	-
Sandpaper skate	-	-	-	0.24	-	-	-	-	-	-
Sharpchin rockfish	-	-	-	2.00	5.06	3.02	-	-	-	-
Shortraker rockfish	-	-	-	-	-	-	-	-	-	-
Shortspine thornyhead	4.20	23.06	17.78	13.06	5.48	8.45	-	-	-	-
Silvergray rockfish	-	-	-	-	-	-	-	-	-	-
Slender sole	-	0.04	-	-	-	-	-	-	-	-
Southern rock sole	-	-	-	-	-	-	1.96	-	0.60	0.41
Spiny dogfish	-	-	-	-	-	-	-	3.61	-	13.06
Splitnose rockfish	0.84	0.21	4.36	59.06	48.87	2.16	-	-	-	-
Spotted ratfish	-	-	-	0.74	-	2.01	58.86	15.00	4.32	5.50
Walleye pollock	-	-	-	-	-	-	0.01	-	-	2.42
Widow rockfish	-	-	6.18	2.02	-	-	-	-	-	-
Wolf eel	-	-	-	-	-	-	-	-	-	-
Yelloweye rockfish	-	-	-	-	-	-	-	-	-	-
Yellowmouth rockfish	18.22	-	10.10	2.80	5.38	6.88	-	-	-	-
Yellowtail rockfish	-	-	-	-	-	-	7.18	-	-	-
Other	1.35	1.20	2.83	21.32	3.60	3.16	22.14	8.04	9.84	0.19
Total	357.57	147.89	479.74	427.24	415.43	520.57	128.16	139.98	124.34	229.27

Appendix B continued.

Species	201	202	203	204	205	206	207	208	209	210
Aleutian skate	-	-	-	-	-	-	-	-	-	-
Arrowtooth flounder	66.23	496.81	9.08	82.16	47.53	42.60	35.97	114.69	132.21	85.87
Aurora rockfish	-	-	-	-	-	-	-	-	-	-
Big skate	-	-	-	-	-	-	-	-	-	-
Bigmouth sculpin	-	-	-	-	-	-	-	-	-	-
Blackbelly eelpout	-	-	-	-	-	-	0.03	0.10	-	-
Bocaccio	-	-	-	-	-	-	2.68	-	4.38	-
Canary rockfish	-	-	-	-	11.75	-	1.86	-	-	-
Copper rockfish	-	-	-	-	-	-	-	-	-	-
Curlfin sole	-	-	2.28	-	-	-	-	-	-	-
Darkblotched rockfish	-	-	-	-	-	-	-	-	-	-
Dover sole	-	0.97	-	0.42	4.08	0.92	0.66	14.98	10.87	4.20
English sole	2.32	7.26	0.26	3.13	0.62	6.51	-	-	-	-
Eulachon	-	-	-	-	-	-	-	-	-	-
Flathead sole	0.80	-	-	-	-	0.50	2.19	-	0.48	-
Greenstriped rockfish	0.46	-	-	0.74	1.12	1.40	2.52	11.84	15.58	15.64
Harlequin rockfish	-	-	-	-	-	-	-	-	-	-
Lingcod	1.57	9.95	-	-	-	3.32	1.62	-	-	9.40
Longnose skate	-	-	-	-	-	-	-	-	-	-
Longspine thornyhead	-	-	-	-	-	-	-	-	-	-
Pacific cod	2.44	15.00	-	0.56	3.38	1.84	4.44	2.64	-	2.23
Pacific hake	0.41	-	-	0.18	0.27	0.24	0.23	1.12	3.07	4.82
Pacific halibut	-	6.38	14.44	5.46	-	-	-	-	-	-
Pacific ocean perch	-	-	-	-	-	-	-	176.52	188.19	204.24
Pacific sanddab	0.68	2.15	3.92	-	-	-	-	-	-	-
Petrale sole	-	2.59	-	13.29	1.94	0.58	-	3.50	6.05	-
Quillback rockfish	-	-	-	-	-	-	-	-	-	-
Ragfish	-	-	-	-	-	-	-	-	-	-
Redbanded rockfish	-	-	-	-	-	-	-	19.88	38.65	10.02
Redstripe rockfish	0.78	-	-	-	547.18	-	-	6.98	-	-
Rex sole	0.80	4.79	-	5.46	14.66	7.00	16.82	4.02	6.33	5.54
Rosethorn rockfish	-	-	-	-	0.28	-	-	-	-	0.46
Rougheye rockfish	-	-	-	-	-	-	-	-	-	-
Sablefish	-	-	-	-	-	-	3.83	24.62	8.81	17.21
Sandpaper skate	-	-	-	-	-	-	-	-	-	-
Sharpchin rockfish	-	-	-	-	16.64	-	-	-	-	21.99
Shortraker rockfish	-	-	-	-	-	-	-	-	-	-
Shortspine thornyhead	-	-	-	-	-	-	-	-	-	2.33
Silvergray rockfish	-	-	-	8.28	23.60	154.06	39.58	33.24	18.12	6.55
Slender sole	-	-	-	-	0.33	0.38	0.42	0.70	0.46	-
Southern rock sole	-	1.74	29.67	-	-	-	-	-	-	-
Spiny dogfish	-	-	-	4.56	5.86	-	1.56	-	2.25	-
Splitnose rockfish	-	-	-	-	-	-	-	-	-	0.10
Spotted ratfish	3.84	1.18	13.92	4.43	0.34	-	0.78	1.90	0.22	0.65
Walleye pollock	0.20	-	-	-	-	1.36	0.50	1.32	0.42	-
Widow rockfish	-	-	-	-	-	-	-	-	-	-
Wolf eel	-	-	-	-	-	-	-	-	-	-
Yelloweye rockfish	-	-	-	-	-	-	-	-	-	-
Yellowmouth rockfish	-	-	-	-	2.14	-	-	28.12	7.24	4.30
Yellowtail rockfish	-	-	-	9.85	16.62	1.28	454.39	9.24	-	-
Other	-	1.49	14.09	0.75	1.17	3.12	1.51	2.22	0.26	0.70
Total	80.53	550.31	87.66	139.27	699.51	225.11	571.59	457.63	443.59	396.25

Appendix B continued.

Species	211	212	213	214	215	216	217	218	219	220
Aleutian skate	-	-	-	-	-	-	-	-	-	-
Arrowtooth flounder	-	19.00	13.24	9.67	4.56	0.01	0.14	-	0.29	-
Aurora rockfish	-	-	-	-	-	-	-	-	-	-
Big skate	-	-	-	-	-	-	-	-	-	-
Bigmouth sculpin	-	-	-	-	-	-	-	-	-	-
Blackbelly eelpout	-	-	-	-	-	-	-	-	-	-
Bocaccio	-	-	-	-	-	-	-	-	-	4.08
Canary rockfish	-	50.40	5.55	4.93	172.57	24.56	-	-	5.90	212.90
Copper rockfish	-	-	-	-	-	-	-	-	-	-
Curlfin sole	-	-	-	-	-	-	-	-	-	-
Darkblotched rockfish	-	-	-	-	-	-	-	-	-	-
Dover sole	-	-	-	-	-	-	-	-	-	-
English sole	-	-	0.76	0.36	-	-	-	-	-	-
Eulachon	-	-	-	-	-	-	-	-	-	-
Flathead sole	-	-	-	-	-	-	-	-	-	-
Greenstriped rockfish	-	-	0.80	0.77	-	1.58	0.77	0.38	0.57	-
Harlequin rockfish	-	-	0.25	-	-	-	-	-	-	-
Lingcod	1.72	-	17.97	-	-	16.26	1.90	2.18	5.42	-
Longnose skate	-	-	6.03	-	-	-	-	-	-	-
Longspine thornyhead	-	-	-	-	-	-	-	-	-	-
Pacific cod	-	-	-	5.41	-	-	-	-	1.26	-
Pacific hake	2.14	-	-	-	-	-	-	-	-	-
Pacific halibut	-	3.02	11.28	9.22	-	7.55	7.35	-	-	-
Pacific ocean perch	2.58	-	-	-	-	-	-	-	-	-
Pacific sanddab	-	-	-	0.62	-	-	-	0.37	0.48	-
Petrale sole	-	51.66	-	2.74	2.44	-	-	-	2.57	0.94
Quillback rockfish	-	-	-	-	-	-	-	-	-	-
Ragfish	-	-	-	-	-	-	-	-	-	-
Redbanded rockfish	1.93	-	-	-	-	-	-	-	-	-
Redstripe rockfish	-	-	-	-	-	-	-	-	-	32.76
Rex sole	-	2.32	6.59	1.18	-	-	-	-	-	-
Rosethorn rockfish	0.70	-	-	-	-	0.47	-	-	-	0.38
Rougheye rockfish	-	-	-	-	-	-	-	-	-	-
Sablefish	-	-	-	-	-	-	-	-	-	-
Sandpaper skate	-	-	-	-	-	-	-	-	-	-
Sharpchin rockfish	4.14	-	0.20	0.24	-	0.21	-	0.06	-	1.38
Shortraker rockfish	-	-	-	-	-	-	-	-	-	-
Shortspine thornyhead	0.25	-	-	-	-	-	-	-	-	-
Silvergray rockfish	-	231.67	22.24	9.86	18.18	4.98	-	4.34	17.04	36.70
Slender sole	-	-	-	-	-	-	-	-	-	-
Southern rock sole	-	-	-	-	-	0.60	-	-	-	-
Spiny dogfish	-	-	-	-	10.74	-	-	3.13	4.35	-
Splitnose rockfish	-	-	-	-	-	-	-	-	-	-
Spotted ratfish	-	3.60	0.37	0.41	2.15	2.83	0.37	-	2.95	-
Walleye pollock	-	-	-	-	-	-	-	-	-	-
Widow rockfish	-	-	-	-	-	-	-	-	-	-
Wolf eel	-	-	-	-	-	-	-	-	-	-
Yelloweye rockfish	-	-	-	2.92	-	6.03	-	6.34	-	-
Yellowmouth rockfish	-	-	0.27	0.23	0.20	6.41	1.02	1.64	0.12	-
Yellowtail rockfish	-	-	2.00	-	-	-	-	-	-	-
Other	0.58	9.66	6.74	2.24	0.18	3.67	1.03	0.96	0.96	2.04
Total	14.04	371.33	94.29	50.80	211.02	75.16	12.58	19.40	41.91	291.18

Appendix B continued.

Species	221	222	223	224	225	226	227	228	229	230
Aleutian skate	-	-	-	-	-	-	-	-	-	-
Arrowtooth flounder	3.09	-	3.89	-	-	9.39	18.42	13.94	29.86	5.30
Aurora rockfish	-	-	-	-	-	-	-	-	-	-
Big skate	-	-	-	-	-	-	-	-	-	-
Bigmouth sculpin	-	-	-	-	-	-	-	-	-	-
Blackbelly eelpout	-	-	-	-	-	-	0.20	-	-	-
Bocaccio	-	-	-	8.94	-	-	-	-	-	-
Canary rockfish	8.68	-	-	-	-	-	-	-	-	-
Copper rockfish	-	-	-	-	-	-	-	-	-	-
Curlfin sole	-	-	-	-	-	-	-	-	-	-
Darkblotched rockfish	-	-	-	-	-	-	-	-	-	-
Dover sole	-	-	0.95	-	-	-	0.42	0.83	0.44	0.40
English sole	-	-	-	-	-	0.29	17.12	0.40	16.85	16.48
Eulachon	-	-	-	-	-	-	-	-	-	-
Flathead sole	-	-	-	-	-	-	0.38	-	-	-
Greenstriped rockfish	-	-	-	-	-	-	-	-	-	-
Harlequin rockfish	0.19	-	-	-	-	-	2.14	-	-	-
Lingcod	13.28	1.85	-	15.78	2.20	-	2.50	2.02	-	-
Longnose skate	-	-	-	-	-	-	5.68	-	-	-
Longspine thornyhead	-	-	-	-	-	-	-	-	-	-
Pacific cod	-	2.22	-	-	0.51	8.63	4.34	3.15	9.91	0.89
Pacific hake	-	-	0.98	-	-	3.14	9.58	10.61	0.87	0.96
Pacific halibut	11.74	7.91	-	40.80	-	-	3.10	21.92	-	-
Pacific ocean perch	-	-	96.65	-	-	-	-	-	-	-
Pacific sanddab	-	-	-	-	-	0.21	-	-	-	-
Petrale sole	-	-	-	-	0.46	3.95	9.62	1.42	1.36	-
Quillback rockfish	-	-	-	137.15	1.02	-	13.02	-	-	-
Ragfish	-	-	-	-	-	-	-	-	-	-
Redbanded rockfish	-	-	5.91	-	-	-	-	-	-	-
Redstripe rockfish	67.88	3.46	2.46	28.00	0.02	-	0.74	-	-	-
Rex sole	0.56	-	1.57	-	-	0.27	14.12	4.80	6.64	12.53
Rosethorn rockfish	0.96	0.72	0.54	-	-	-	-	-	-	-
Rougheye rockfish	-	-	-	-	-	-	-	-	-	-
Sablefish	8.26	-	4.86	-	-	-	-	-	-	-
Sandpaper skate	-	-	-	-	-	-	-	-	-	-
Sharpchin rockfish	220.39	11.02	1.38	-	-	-	3.20	0.22	-	-
Shortraker rockfish	-	-	-	-	-	-	-	-	-	-
Shortspine thornyhead	-	-	2.46	-	-	-	-	-	-	-
Silvergray rockfish	17.32	42.73	8.96	0.14	34.84	20.27	183.51	18.16	5.77	108.24
Slender sole	-	-	0.39	-	-	-	-	-	0.13	-
Southern rock sole	-	-	-	-	0.65	3.23	-	-	-	-
Spiny dogfish	7.10	3.21	-	-	-	4.56	2.52	-	2.64	3.78
Splitnose rockfish	-	-	7.26	-	-	-	-	0.30	-	-
Spotted ratfish	0.02	-	-	0.38	0.49	0.85	0.04	13.70	1.82	1.16
Walleye pollock	-	-	-	-	-	1.24	3.16	4.18	0.28	1.96
Widow rockfish	-	-	-	1.48	-	-	-	-	-	-
Wolf eel	-	-	-	-	-	-	-	-	-	-
Yelloweye rockfish	21.02	2.89	6.04	-	-	-	6.08	-	-	-
Yellowmouth rockfish	21.78	11.76	-	-	-	-	-	0.02	-	0.02
Yellowtail rockfish	-	-	-	-	-	-	-	-	-	-
Other	15.00	6.36	6.78	3.76	1.98	4.23	11.41	0.84	1.27	2.24
Total	417.27	94.13	151.08	236.43	42.17	60.26	311.30	96.51	77.84	153.96

Appendix B continued.

Species	231	232	233	234	235	236	237	238	239	240
Aleutian skate	-	-	-	-	-	-	-	-	-	-
Arrowtooth flounder	0.10	2.82	3.88	12.88	24.02	2.88	-	22.22	12.44	8.30
Aurora rockfish	-	-	-	-	-	-	-	-	-	-
Big skate	-	-	-	-	-	-	-	-	-	-
Bigmouth sculpin	-	-	-	-	-	-	-	-	-	-
Blackbelly eelpout	-	-	-	-	0.32	-	-	-	-	-
Bocaccio	-	-	-	-	-	-	-	-	-	-
Canary rockfish	3.74	-	-	-	-	-	-	1.30	-	-
Copper rockfish	-	-	-	-	-	-	-	-	-	-
Curlfin sole	-	-	-	-	-	-	-	-	-	-
Darkblotched rockfish	-	-	-	-	-	-	-	-	-	-
Dover sole	-	-	-	-	0.70	-	-	1.39	2.04	-
English sole	0.28	0.33	11.26	-	26.48	16.80	-	1.68	0.92	-
Eulachon	-	-	-	-	-	-	-	-	-	-
Flathead sole	-	-	-	-	-	-	-	-	-	-
Greenstriped rockfish	0.05	-	-	-	-	-	-	-	-	1.88
Harlequin rockfish	-	-	-	-	-	-	-	-	-	-
Lingcod	-	1.28	-	6.34	-	-	-	10.65	-	0.86
Longnose skate	-	-	-	-	-	-	-	-	-	-
Longspine thornyhead	-	-	-	-	-	-	-	-	-	-
Pacific cod	0.26	0.98	1.18	1.26	-	0.42	0.47	4.04	0.24	1.66
Pacific hake	-	-	2.32	5.20	25.84	4.16	-	1.51	4.60	-
Pacific halibut	-	6.88	-	28.19	-	-	-	-	3.11	-
Pacific ocean perch	-	-	-	-	-	-	-	3.41	12.76	69.44
Pacific sanddab	-	-	-	-	-	-	-	-	-	-
Petrale sole	-	-	1.00	2.86	1.58	1.80	-	-	0.83	0.32
Quillback rockfish	2.64	-	-	-	-	-	-	-	-	-
Ragfish	-	-	-	-	-	-	-	-	-	-
Redbanded rockfish	-	-	-	-	-	-	-	-	1.40	-
Redstripe rockfish	-	-	-	-	-	-	-	-	-	1.68
Rex sole	-	-	3.32	-	40.05	5.68	-	5.01	1.24	3.18
Rosethorn rockfish	-	-	-	-	-	-	-	-	-	-
Rougheye rockfish	-	-	-	-	-	-	-	-	-	-
Sablefish	-	-	2.16	-	-	1.94	-	-	0.38	-
Sandpaper skate	-	-	-	-	-	-	-	-	-	-
Sharpchin rockfish	-	-	-	-	-	-	-	-	-	0.34
Shortraker rockfish	-	-	-	-	-	-	-	-	-	-
Shortspine thornyhead	-	-	-	-	-	-	-	-	-	-
Silvergray rockfish	18.72	15.78	89.03	108.44	50.84	1244.29	6.95	35.15	86.98	28.08
Slender sole	-	-	-	-	-	-	-	0.37	0.18	0.18
Southern rock sole	-	3.02	3.68	3.24	-	-	-	-	-	-
Spiny dogfish	-	-	-	3.78	-	-	2.64	3.93	1.08	-
Splitnose rockfish	-	-	-	-	-	-	-	-	-	-
Spotted ratfish	0.13	2.50	0.86	2.24	0.26	1.58	-	1.15	0.74	0.42
Walleye pollock	-	5.84	1.22	1.14	0.46	0.66	-	1.74	7.28	0.16
Widow rockfish	-	-	-	-	-	-	-	-	-	-
Wolf eel	-	-	-	-	-	-	-	-	-	-
Yelloweye rockfish	-	-	-	-	-	-	-	-	-	-
Yellowmouth rockfish	0.06	0.08	-	0.18	-	-	-	-	-	-
Yellowtail rockfish	-	-	-	-	-	204.11	-	2.33	-	-
Other	0.03	0.11	1.95	0.56	1.24	0.30	6.41	0.24	0.39	17.83
Total	26.01	39.62	121.86	176.31	171.79	1484.62	16.47	96.12	136.61	134.33

Appendix B continued.

Species	241	242	243	244	245	246	247	248	249	250
Aleutian skate	-	-	-	-	-	-	-	-	-	-
Arrowtooth flounder	-	0.18	-	3.57	2.16	3.40	5.50	0.34	4.12	0.52
Aurora rockfish	-	-	-	-	-	-	-	-	-	-
Big skate	-	-	-	-	-	-	-	-	-	-
Bigmouth sculpin	-	-	-	-	-	-	-	-	-	-
Blackbelly eelpout	-	-	-	-	-	-	-	-	-	-
Bocaccio	-	-	-	-	-	-	-	-	-	-
Canary rockfish	54.94	-	-	-	-	-	-	-	-	-
Copper rockfish	-	-	-	-	-	-	-	-	-	-
Curlfin sole	-	-	-	-	-	-	-	-	-	-
Darkblotched rockfish	-	-	-	-	-	-	-	-	-	-
Dover sole	-	0.44	-	3.40	7.74	4.84	1.18	1.10	1.09	-
English sole	0.41	0.50	-	-	-	-	-	-	-	-
Eulachon	-	-	-	-	-	-	-	-	-	-
Flathead sole	-	-	-	-	-	-	-	-	-	-
Greenstriped rockfish	0.63	5.22	6.42	-	-	-	-	1.08	1.26	0.40
Harlequin rockfish	-	-	-	-	-	-	-	-	-	-
Lingcod	-	-	-	-	-	-	-	-	-	-
Longnose skate	-	-	-	3.48	5.02	-	-	-	11.24	-
Longspine thornyhead	-	-	-	-	-	-	-	-	-	-
Pacific cod	-	-	-	-	-	-	1.24	1.74	2.10	1.21
Pacific hake	0.98	-	0.84	12.81	51.88	5.56	1.50	-	-	-
Pacific halibut	-	-	-	-	-	-	-	-	-	-
Pacific ocean perch	-	13.96	102.26	38.73	19.32	822.58	216.58	279.42	95.08	17.04
Pacific sanddab	-	-	-	-	-	-	-	-	-	-
Petrale sole	0.69	-	0.58	-	-	-	-	-	-	-
Quillback rockfish	-	-	-	-	-	-	-	-	-	-
Ragfish	-	-	-	-	-	-	-	-	-	-
Redbanded rockfish	-	-	-	3.16	-	8.40	4.42	2.10	2.06	-
Redstripe rockfish	226.61	65.62	42.10	-	-	-	-	4.22	8.33	2.56
Rex sole	-	0.84	2.96	-	4.06	6.62	2.22	5.34	8.46	0.82
Rosethorn rockfish	-	-	-	0.62	-	0.74	-	-	0.52	-
Rougheye rockfish	-	-	-	3.92	9.50	-	-	-	-	-
Sablefish	-	-	-	42.00	22.58	8.76	-	4.08	2.17	1.73
Sandpaper skate	-	-	-	-	-	-	-	-	-	-
Sharpchin rockfish	0.13	0.16	7.18	-	-	-	4.88	12.30	3.40	16.22
Shortraker rockfish	-	-	-	11.32	-	-	-	-	-	-
Shortspine thornyhead	-	-	-	5.14	15.46	23.90	7.16	2.28	-	0.96
Silvergray rockfish	60.60	98.87	73.72	1.74	-	9.58	8.74	31.86	44.14	15.69
Slender sole	-	-	-	-	-	-	0.08	-	-	-
Southern rock sole	1.01	-	-	-	-	-	-	-	-	-
Spiny dogfish	-	-	2.12	-	-	-	-	-	-	-
Splitnose rockfish	-	-	-	-	-	3.70	6.52	-	0.23	-
Spotted ratfish	-	0.56	2.50	0.56	-	0.56	0.72	0.44	-	-
Walleye pollock	0.37	0.34	2.32	-	-	1.70	1.44	1.68	0.98	0.24
Widow rockfish	0.79	-	-	-	-	-	-	-	-	-
Wolf eel	-	-	-	-	-	-	-	-	-	-
Yelloweye rockfish	2.21	-	-	-	-	-	-	-	-	2.29
Yellowmouth rockfish	-	-	-	-	-	8.88	-	-	-	-
Yellowtail rockfish	461.21	11.95	-	-	-	-	-	-	-	-
Other	0.40	1.38	2.86	3.55	132.80	3.77	0.86	0.87	0.83	4.19
Total	810.98	200.02	245.86	134.00	270.52	912.99	263.04	348.85	186.01	63.87

Appendix B continued.

Species	251	252	253	254	255	256	257	258	259	260
Aleutian skate	-	-	-	-	-	-	-	-	-	-
Arrowtooth flounder	0.07	1.90	1.67	8.70	7.28	22.92	1.20	-	3.19	3.57
Aurora rockfish	-	-	-	-	-	-	-	-	-	-
Big skate	-	-	-	-	-	-	-	-	-	-
Bigmouth sculpin	-	4.58	-	-	-	-	-	-	-	-
Blackbelly eelpout	-	-	-	-	-	-	-	-	-	-
Bocaccio	-	-	-	-	-	-	-	-	-	-
Canary rockfish	-	-	-	-	-	-	-	-	-	-
Copper rockfish	-	-	-	-	-	-	-	-	-	-
Curlfin sole	-	-	-	-	-	-	-	-	-	-
Darkblotched rockfish	-	-	-	-	-	-	5.30	-	-	-
Dover sole	-	0.87	1.01	6.70	2.35	15.33	-	0.50	2.26	2.21
English sole	-	-	-	-	-	-	-	-	-	-
Eulachon	-	-	-	-	-	-	-	-	-	-
Flathead sole	-	-	-	-	-	-	-	-	-	-
Greenstriped rockfish	0.14	-	-	-	-	-	-	-	-	-
Harlequin rockfish	-	-	-	-	-	-	-	-	-	-
Lingcod	-	-	-	-	-	-	-	-	7.63	-
Longnose skate	-	-	-	-	-	-	-	-	-	-
Longspine thornyhead	-	-	-	-	-	-	-	-	-	-
Pacific cod	0.32	1.53	-	-	-	-	-	-	0.34	2.03
Pacific hake	-	3.69	2.29	220.79	13.98	-	-	-	8.39	8.03
Pacific halibut	-	-	-	-	-	-	-	-	-	-
Pacific ocean perch	17.96	182.97	39.92	51.50	119.45	47.22	1370.27	510.78	58.66	76.93
Pacific sanddab	-	-	-	-	-	-	-	-	-	-
Petrale sole	-	-	-	-	-	-	-	-	-	-
Quillback rockfish	-	-	-	-	-	-	-	-	-	-
Ragfish	-	-	-	-	-	-	-	-	-	-
Redbanded rockfish	3.34	1.86	2.70	6.96	2.62	1.94	-	1.94	2.76	7.84
Redstripe rockfish	2.83	6.67	-	-	-	-	-	-	3.35	-
Rex sole	-	0.77	1.48	3.70	2.60	4.16	-	-	0.70	2.32
Rosethorn rockfish	-	1.41	-	-	-	-	2.64	2.76	-	-
Rougheye rockfish	-	-	-	1.10	-	0.92	-	6.22	-	-
Sablefish	1.81	1.44	-	1.32	3.86	16.24	-	-	-	-
Sandpaper skate	-	-	-	0.34	-	1.24	1.37	-	-	-
Sharpchin rockfish	5.62	1.46	0.03	-	33.84	0.66	33.88	89.52	22.72	0.69
Shortraker rockfish	-	-	-	-	-	-	8.82	-	-	-
Shortspine thornyhead	-	11.07	2.87	25.78	8.65	19.74	8.75	6.28	1.30	12.04
Silvergray rockfish	27.51	14.22	8.60	5.56	6.27	1.85	2.76	7.84	63.87	19.10
Slender sole	-	-	-	-	-	-	-	-	-	-
Southern rock sole	-	-	-	-	-	-	-	-	-	-
Spiny dogfish	-	-	-	-	2.76	-	-	-	-	-
Splitnose rockfish	-	-	0.32	0.42	0.37	-	-	-	0.16	0.38
Spotted ratfish	-	0.64	-	-	-	-	-	-	0.43	1.29
Walleye pollock	-	-	0.39	-	2.56	0.98	-	-	1.23	0.68
Widow rockfish	-	-	-	-	-	-	2.34	1.70	-	-
Wolf eel	-	-	-	-	-	-	-	-	-	-
Yelloweye rockfish	-	-	-	-	-	-	-	-	-	-
Yellowmouth rockfish	-	-	-	-	-	-	62.02	91.49	-	0.70
Yellowtail rockfish	-	-	-	-	-	-	-	-	-	-
Other	0.48	2.29	0.16	0.46	0.60	2.58	0.62	0.76	3.83	0.70
Total	60.08	237.37	61.44	333.33	207.19	135.78	1499.97	719.79	180.82	138.51

Appendix B continued.

Species	261	262	263	264	265	266	267	268	269	270
Aleutian skate	-	-	-	-	-	-	-	-	-	-
Arrowtooth flounder	1.94	0.68	8.14	9.30	14.34	9.56	13.80	20.94	11.96	15.46
Aurora rockfish	-	-	-	-	-	-	1.20	1.32	-	-
Big skate	-	-	-	-	-	-	-	-	-	-
Bigmouth sculpin	-	-	-	-	-	-	-	-	-	-
Blackbelly eelpout	-	-	-	-	-	-	-	-	-	-
Bocaccio	-	-	-	-	-	-	-	-	-	-
Canary rockfish	-	-	-	-	-	-	-	-	-	-
Copper rockfish	-	-	-	-	-	-	-	-	-	-
Curlfin sole	-	-	-	-	-	-	-	-	-	-
Darkblotched rockfish	-	-	6.86	2.18	7.04	-	-	-	2.85	23.11
Dover sole	-	-	3.46	5.62	1.80	9.56	-	9.42	1.24	1.03
English sole	-	-	-	-	-	-	-	-	-	-
Eulachon	-	-	-	-	-	-	-	-	-	-
Flathead sole	-	-	-	-	-	-	-	-	-	-
Greenstriped rockfish	-	-	-	-	-	-	-	-	-	-
Harlequin rockfish	0.62	-	-	-	-	-	-	-	-	-
Lingcod	7.23	-	-	-	-	-	-	-	-	-
Longnose skate	-	-	-	-	-	-	-	-	-	-
Longspine thornyhead	-	-	-	-	-	-	9.63	18.98	-	-
Pacific cod	-	-	-	-	-	-	-	-	-	-
Pacific hake	1.48	-	22.82	78.73	202.70	38.73	13.13	22.02	2.47	93.94
Pacific halibut	-	-	-	-	-	-	-	-	-	-
Pacific ocean perch	61.58	7.38	52.54	46.71	82.03	24.72	6.14	-	204.43	285.32
Pacific sanddab	-	-	-	-	-	-	-	-	-	-
Petrale sole	-	-	-	-	-	-	-	-	-	-
Quillback rockfish	-	-	-	-	-	-	-	-	-	-
Ragfish	-	-	-	-	-	-	-	45.08	-	-
Redbanded rockfish	14.48	0.36	8.92	7.74	18.86	5.78	1.61	-	4.98	8.30
Redstripe rockfish	137.28	172.45	-	-	-	-	-	-	-	-
Rex sole	0.26	2.52	1.76	7.34	8.74	9.36	0.58	0.98	1.25	4.07
Rosethorn rockfish	2.52	1.12	-	-	-	0.56	-	-	5.26	4.47
Rougheye rockfish	-	-	37.98	-	4.22	30.18	68.58	24.50	1.27	8.04
Sablefish	4.44	-	3.46	19.63	25.16	15.58	13.75	73.72	2.82	3.94
Sandpaper skate	-	-	-	0.54	-	-	-	-	-	-
Sharpchin rockfish	331.68	106.54	-	-	-	-	-	-	-	-
Shortraker rockfish	-	-	9.96	13.73	-	2.90	68.89	44.65	49.06	-
Shortspine thornyhead	1.72	0.78	17.00	12.22	10.30	14.76	26.80	34.28	28.75	55.24
Silvergray rockfish	16.26	6.96	-	-	-	-	-	-	-	-
Slender sole	-	-	-	-	-	-	-	-	-	-
Southern rock sole	-	-	-	-	-	-	-	-	-	-
Spiny dogfish	4.90	-	-	-	-	-	-	-	-	-
Splitnose rockfish	-	-	3.18	-	0.44	-	-	-	319.51	596.89
Spotted ratfish	0.42	-	0.18	-	0.84	0.51	-	-	0.67	6.85
Walleye pollock	1.12	-	1.30	-	-	-	-	-	-	-
Widow rockfish	24.32	16.18	-	-	-	-	-	-	-	-
Wolf eel	-	-	-	-	-	-	-	-	-	-
Yelloweye rockfish	-	-	-	-	-	-	-	-	-	-
Yellowmouth rockfish	243.07	49.40	4.24	-	-	-	-	-	84.67	180.86
Yellowtail rockfish	-	-	-	-	-	-	-	-	-	-
Other	5.70	2.40	1.84	0.61	2.32	3.73	4.27	11.56	2.38	1.29
Total	861.02	366.77	183.64	204.35	378.79	165.93	228.38	307.45	723.57	1288.81

Appendix B continued.

Species	271	272	273	274	275	276	277
Aleutian skate	-	-	-	-	-	-	-
Arrowtooth flounder	3.89	3.92	3.08	2.85	5.88	-	-
Aurora rockfish	4.13	-	-	-	-	-	-
Big skate	-	-	-	-	-	-	-
Bigmouth sculpin	-	-	-	-	-	-	-
Blackbelly eelpout	-	-	-	-	-	-	-
Bocaccio	-	-	5.29	4.76	-	-	-
Canary rockfish	-	-	-	-	-	-	3.98
Copper rockfish	-	-	-	-	-	-	-
Curlfin sole	-	-	-	-	-	-	-
Darkblotched rockfish	-	0.87	-	-	-	-	-
Dover sole	10.95	0.67	-	0.53	-	-	-
English sole	-	-	-	-	0.63	-	-
Eulachon	-	-	-	-	-	-	-
Flathead sole	-	-	-	-	-	-	-
Greenstriped rockfish	-	-	1.10	1.88	1.65	-	-
Harlequin rockfish	-	-	-	-	-	-	-
Lingcod	-	-	-	-	-	-	2.36
Longnose skate	-	-	-	-	-	-	-
Longspine thornyhead	3.24	-	-	-	-	-	-
Pacific cod	-	-	-	-	0.18	-	-
Pacific hake	13.40	66.19	-	0.73	-	-	-
Pacific halibut	16.75	-	-	-	12.71	6.29	7.68
Pacific ocean perch	4.53	52.80	70.03	100.17	-	-	-
Pacific sanddab	-	-	-	-	1.78	3.24	0.16
Petrale sole	-	-	-	-	0.37	-	-
Quillback rockfish	-	-	-	-	-	-	4.74
Ragfish	-	-	-	-	-	-	-
Redbanded rockfish	6.58	0.92	15.19	10.53	-	-	-
Redstripe rockfish	-	-	6.04	4.59	2.82	-	0.45
Rex sole	3.40	1.18	1.60	-	3.22	0.96	-
Rosethorn rockfish	-	0.93	1.66	1.45	-	-	-
Rougheye rockfish	172.24	3.65	-	-	-	-	-
Sablefish	8.23	2.89	-	7.11	-	-	-
Sandpaper skate	-	-	-	-	-	-	-
Sharpchin rockfish	-	0.66	96.59	271.74	-	-	-
Shortraker rockfish	42.94	-	-	-	-	-	-
Shortspine thornyhead	58.72	7.98	12.86	6.16	-	-	-
Silvergray rockfish	-	-	3.84	6.52	2.58	-	1.63
Slender sole	-	-	0.16	-	-	-	-
Southern rock sole	-	-	-	-	0.92	0.84	0.31
Spiny dogfish	-	-	-	-	-	-	-
Splitnose rockfish	-	467.26	-	-	-	-	-
Spotted ratfish	-	-	-	-	1.17	1.73	-
Walleye pollock	-	-	-	-	-	-	-
Widow rockfish	-	1.49	8.68	-	-	-	0.21
Wolf eel	-	-	-	-	-	-	-
Yelloweye rockfish	-	-	-	-	5.06	-	-
Yellowmouth rockfish	-	170.83	52.02	134.76	-	-	-
Yellowtail rockfish	-	-	-	-	1.47	-	-
Other	14.31	0.45	0.90	1.54	0.84	5.57	4.52
Total	363.31	782.69	279.04	555.32	41.28	18.63	26.04